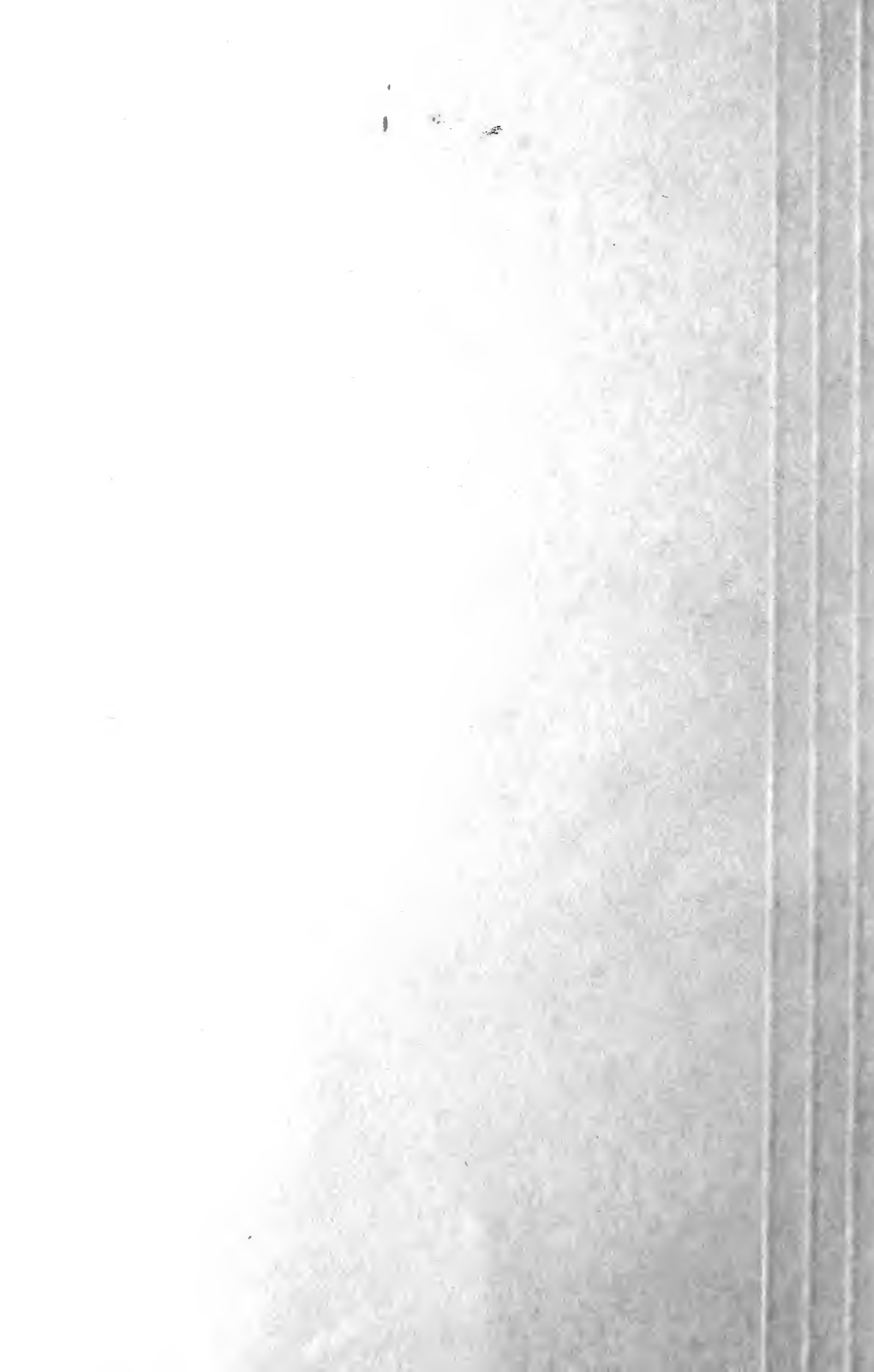
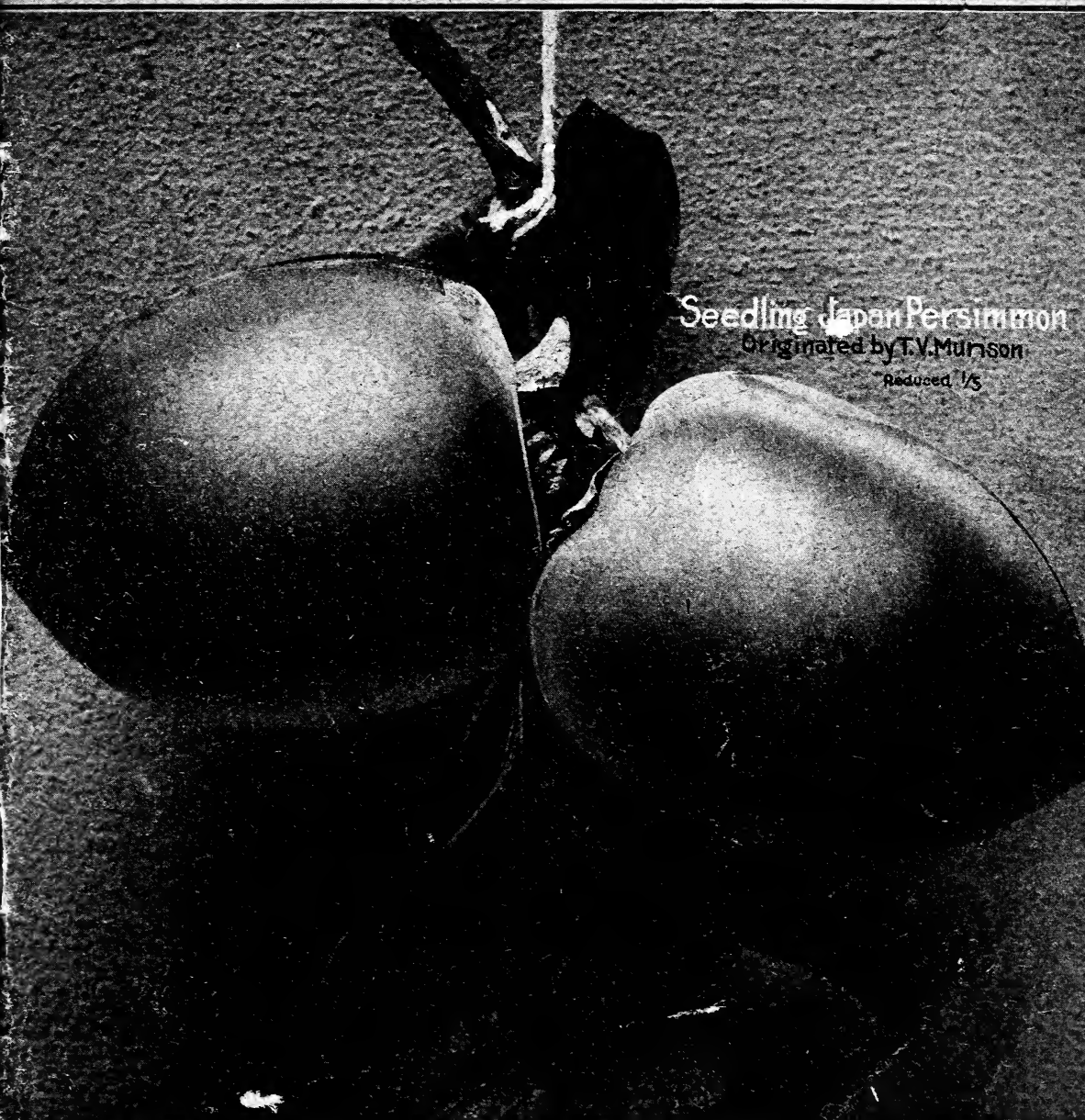


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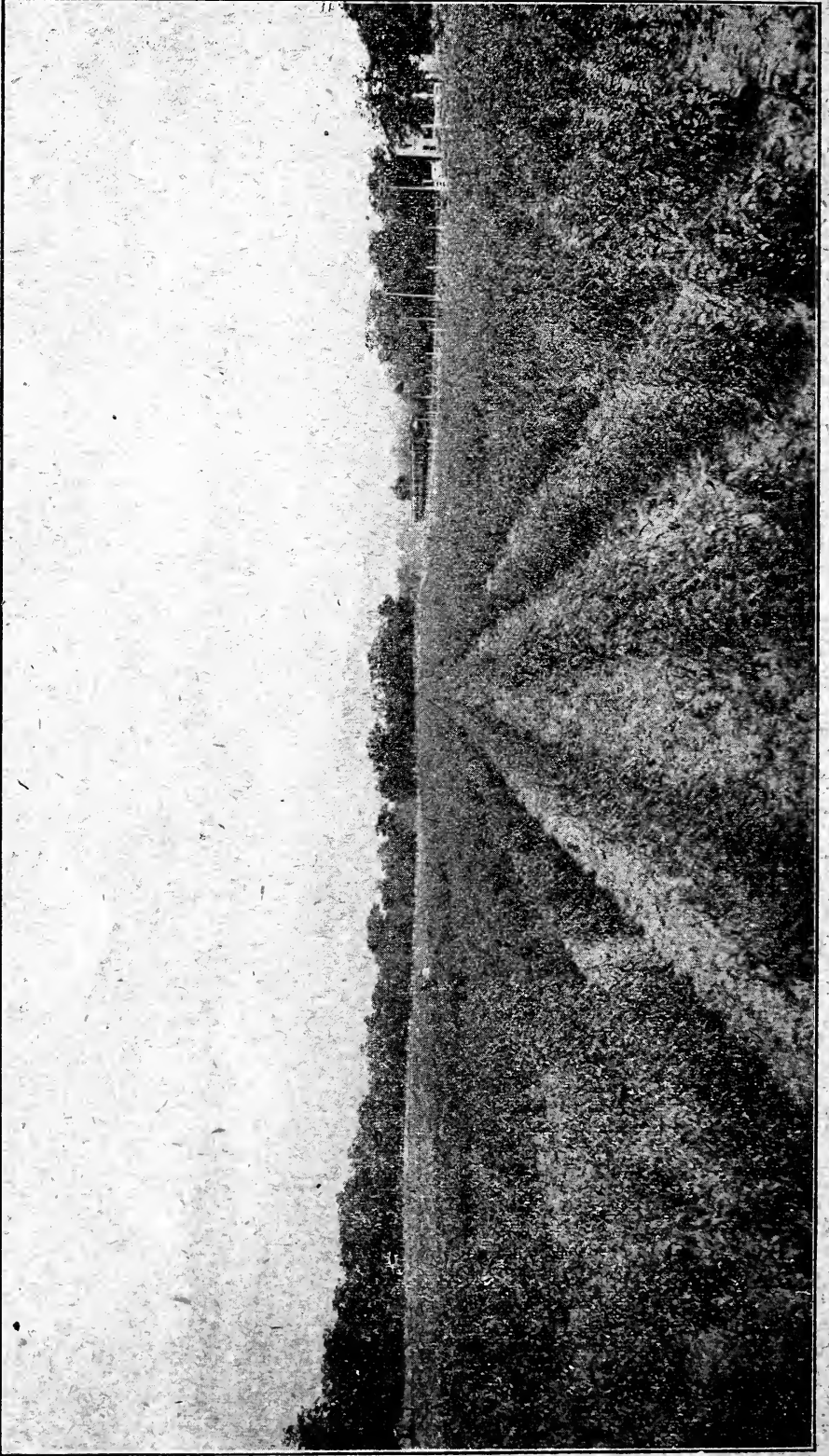


6283 T.V.M. INDEXED
THE **MUNSON NURSERIES**
T.V. MUNSON AND SON INDEXED
PROPRIETORS 1913-14



Seedling Japan Persimmon
Originated by T.V. Munson
Reduced 1/5

DENISON TEXAS



A VIEW OF ONE OF OUR BLOCKS OF PEACH TREES.

Introductory

To Our Many Friends and Customers:

Since the issue of the 1912-1913 edition of our catalog, The Munson Nurseries, as well as the Horticultural World have suffered an irreparable loss in the passing away of its founder, T. V. Munson, on January 21, 1913.

The Munson Nurseries were established in 1876 by T. V. Munson. In 1895 his son, who had much previous training, became associated with him in the conduct of the business. For thirty-seven years these Nurseries have had a reputation for honorable dealing, and the sending out of only first class stock of best adapted varieties.

There will be no change in the business nor in its policy of straightforward, honorable dealing. It will be our aim to improve if possible upon the past, and we trust that our former customers and many new ones will give us their support, for which we will be truly thankful.

In compiling our lists of varieties, our policy is not to make a long list of varieties containing many that are indifferent, but to shorten the list, retaining only the best, yet to cover the entire season with suitable and choice varieties. Oftentimes there are many varieties so nearly alike that it is a burden both to ourselves and the horticultural interests to carry them, so we have dropped all of the so-near-alike except the ones which we considered the best. In some cases we have dropped varieties heretofore included in our former catalog as we have not sufficient stock this season to list, but these will be relisted as soon as stock warrants.

NO AGENTS—We employ no traveling or resident agents. We deal direct with all our customers. If there should be anything wrong with the filling of your order, we are here, where we have been for the past thirty-seven years, to make good any deficiency. Those who claim to be our agents are frauds and should be shunned. Where we learn of such frauds, using our reputation to gain orders, we will publish them for the protection of our customers.

We never could see the benefit to the planter to be importuned by oily-tongued "agents" out of planting season, with highly exaggerated pictures, samples in magnifying jars and deceptive speech into giving orders at two to four times the price that the same or better varieties can be ordered direct from reliable, reputable and responsible nurseries whose carefully prepared though not showy catalogs enable them to order far more intelligently and profitably and at proper season, just when one wishes to plant. A resident of a community who wishes to make up a club on his own account for his or mutual profit is not considered an agent. We solicit such club or aggregate orders. See page 31 in catalog following "Prices."

The CAREFUL, TRUTHFUL DESCRIPTIONS are of far more value in making successful selections than would be the grandest set of pictures that could be executed. Therefore, study the descriptions, and preserve this Catalog, for it will be found a most valuable horticultural work of reference. Our methods of propagation are those pursued by the largest, most intelligent, and most successful planters of commercial orchards.

CARE OF TREES ON ARRIVAL

Be careful in unpacking to note everything, and immediately "heel in" in moist soil till planted, or plant at once. Never allow the roots to dry, or failure will most likely result. If the stock is received in a frozen condition, place the bales or boxes in a dark cellar or bury in earth till thawed out.

Before planting remove all broken and extra long roots with a sharp knife, cutting from below outward, not from above downward. One-year-old peach or apple trees should be cut back to a naked stem $1\frac{1}{2}$ to 2 feet high; leave no side branches. Two-year-old trees should have their branches cut back to their half length or more, the lower less than those above; cutting in shorter as you go upward, and leaving the leader the longest. Plant as deep as the trees stood in the nursery row, excepting dwarf pear and cherries, which should be planted sufficiently deep to cover the stock from two to three inches.

The ground should be thoroughly plowed and subsoiled at least fifteen inches deep. If to be set in land which cannot be plowed, dig holes not less than eighteen inches deep and three feet across. Then fill up with rich, mellow earth, but no fresh manure, to such a point that the tree set thereon will stand the same depth in soil, when the hole is filled, as it stood in the nursery row. Lean the tree to the south considerably and fill in among the roots carefully with mellow soil, and when completely covered an inch or two, press the soil firmly down with the foot, after which level up the hole with loose soil, which should not be tramped. If the soil is dry, pour in a bucketful or two of water before filling the hole, and when settled away, level up with loose soil. Keep the soil thoroughly pulverized about the tree, and free from weeds during the growing season. Do not water through the summer-time by pouring water **ON TOP** of the ground, but dig trenches around the tree and fill with water every evening until ground is thoroughly saturated below the roots; then no more watering will be needed for two weeks. Partial surface watering kills more trees than it saves. Water only in drouth, when trees show need of it.

For more detailed information on this subject and on future care of the trees, we respectfully refer you to American Fruit Culturist, or Bailey's Principles of Fruit Culture, found in the list of books.

FOR INFORMATION ON SPRAYING, Diseases of Trees and Plants, and all kindred subjects, write your State Agricultural Department, or Experiment Station, or Department of Agriculture, Washington, D. C., for bulletins on these subjects. They will be furnished to you free of charge and will give you the latest and best information. The National Government and most all the States maintain a department devoted to horticultural interests, and their information on spraying, diseases of trees and plants, etc., is the best to be had.

Horticultural Information

We receive many inquiries about Horticultural matters, some of which to properly answer would require several pages of letter writing and much time in searching the information with which to make answer. We are glad to give our customers all the information possible but the questions are so numerous we find it impossible to answer all in the little time that we can spare from looking after the proper filling of our customers' orders, as we give the careful propagation and the growing of stock for our customers the first consideration. To assist our customers as much as possible we have here listed, after careful examination, the following books upon horticultural matters. We will take pleasure in ordering any of these or other horticultural and agricultural books for our customers at the publishers' prices. We do not keep the books in stock here, but same will be mailed direct to you from the publishers. By so doing we are enabled to obtain these books at a less price to our customers than if we carried them in stock. Cash must accompany the order. No discounts.

Nearly every one of these books is profusely illustrated.

American Apple Orchard. Waugh. 226 pages.....	\$1.00
American Grape Growing and Wine Making. Prof. Geo. Husmann. 310 pages.....	1.50
American Fruit Culturist. J. J. Thomas. The standard work. 920 pages.....	2.50
Bush Fruits. Fred W. Card. Treating of Berries and Shrub-like Fruits. 537 pages..	1.50
California Fruits and How to Grow Them. Illustrated. 477 pages. Wickson.....	3.00
Citrus Fruits and Their Culture. H. H. Hume.....	2.50
Elementary Principles of Agriculture. Ferguson & Lewis. A superb book, both for the student and the practical farmer.....	1.00
Evolution of Our Native Fruits. L. H. Bailey, 472 pages.....	2.00
Field Notes on Apple Culture. L. H. Bailey. 90 pages.....	.75
Fungi and Fungicides. C. M. Weed. All about the treatment of plant diseases. 228 pages	1.00
Fertilizers. E. B. Voorhees. 335 pages.....	1.00
Foundations of American Grape Culture. T. V. Munson. The most complete of any work on grapes. Superbly illustrated.....	2.00
Fruit Grower's Guide Book. An excellent work by E. E. Favor.....	1.00
Garden Making. L. H. Bailey. Practical. Starts the beginner aright on how to raise fruits and flowers about one's home. 417 pages.....	.75
How to Make a Fruit Garden. S. W. Fletcher. Invaluable for amateurs. 283 pages. Nearly 200 photographs	2.00
How to Make a Flower Garden. 370 pages. Over 200 photographs.....	1.60
How to Make a Vegetable Garden. Edith L. Fullerton. 250 pages.....	2.00
Irrigation Farming. Lute Wilcox. 312 pages.....	1.50
Irrigation and Drainage. F. H. King. 502 pages.....	1.50
Lawns and How to Make Them. Leonard Barron. Finely illustrated.....	1.20
Market Gardening and Farm Notes. Landreth.....	1.00
Orchard and Fruit Garden. E. P. Powell. A valuable work for the beginner and practical horticulturist. 322 pages.....	1.00
Oemler's Gardening for the South. Treating of vegetables and fruits.....	1.50
Principles of Fruit Growing. Bailey. The best work of the kind. 516 pages.....	1.50
Practical Floriculture. Peter Henderson.....	1.50
Plums and Plum Culture. F. A. Waugh. 371 pages.....	1.50
Principles of Plant Culture. E. S. Goff. 285 pages.....	1.00
Plant Breeding. L. H. Bailey. 293 pages.....	1.00
Pruning Book. L. H. Bailey. A monograph of the pruning and training of plants as applied to American conditions. 545 pages.....	1.50
Roses and How to Grow Them. By many experts. Practical and illustrated.....	1.20
Southern Gardeners' Practical Manual. J. S. Newman. Written especially for the South. 250 pages	1.00
Spraying of Plants. E. G. Lodeman. Complete discussion of this most important subject. 399 pages	1.00
Small Fruit Culturist. A. S. Fuller. All classes of small fruits.....	1.50
Soils. Their properties, improvement and management. C. W. Burkett. 303 pages...	1.25
Strawberry Culturist. A. S. Fuller. Excellent little work.....	.25

FOR INFORMATION ON SPRAYING, Diseases of Trees and Plants, and all kindred subjects, write your State Agricultural Department, or Experiment Station, or Department of Agriculture, Washington, D. C., for bulletins on these subjects. They will be furnished to you free of charge and will give you the latest and best information. The National Government and most all the States maintain a department devoted to horticultural interests, and their information on spraying, diseases of trees and plants, etc., is the best to be had.

[Note—If your trees are infected with any insects or fungous diseases, send infected portion to your Experiment Station, your State Entomologist, or United States Entomologist, at Washington, D. C.]

POT PLANTS, CUT FLOWERS, FLORAL DESIGNS


We do not have for sale any Cut Flowers or Greenhouse Plants, but same can be supplied from a greenhouse adjoining the nursery. Write to C. E. Majors, florist, 1315 Mirick Ave., Denison, Texas, for information and particulars.

ADDRESSES OF HOME IMPROVERS PAID FOR

If you will send us with your order the names and postoffice addresses of six of your neighbors who own and are improving their homes, we will put in with your order, if as much as \$3 or over, articles from our list, of your own selection, to the amount of 25 cents. For 12 such addresses, when order is \$4 or more, articles to the amount of 50 cents. This order does not extend to more than twelve addresses from one customer. Be sure to put the list of names on a separate paper from that of your letter or order, as the list goes to a different department. Unless list of names is separate from order or letter, we cannot allow the extra stock.

Please Read the Following

Terms, Conditions, Shipping, Etc.

1. **Cash** (by Draft, Money Order, or Registered Letter) with order will secure prompt filling. No goods shipped unless **Cash** or **Satisfactory Security Accompanies** the order. If personal checks are sent, include 15 cents for collection, which amount they cost us.
2. **To Secure Goods Not Wanted Sent at Once**, send one-half the cost with the order. No reserve will be made otherwise. **Goods will be shipped "C. O. D."** only when one-half payment is sent with order, or satisfactory proof of reliability is furnished.
3. **Our Responsibility ceases** after delivery, except for mistakes in filling, which must be reported **immediately** after receipt of goods, to admit of adjustment. A double system of checking is employed in putting up orders, so that mistakes are rare, and sometimes customers complain of an error and afterwards find it was their own mistake.
4. **Every Care is Taken** to secure safe and prompt transportation. **Goods are carefully packed** in moss or straw, well baled or boxed.
5. **It is Always Better to Ship by Express** unless the amount of stock is large. Nursery stock by express takes the "General Special" rate, which is 20 per cent to 25 per cent less than the Mdse. rate. In receiving your order, see that it has been billed at the Special rate; if not have the agent make correction for your benefit.
6. **Give Explicit Directions for Shipment.** When such are not given we shall use our best judgment in selecting a route, but will not be responsible for loss thereby.
7. **Shipping Facilities** in every direction from Denison are excellent. We have the following: M. K. & T. Ry., operating the American Express; H. & T. C. Ry., operating the Wells-Fargo Express; T. & P. Ry., operating the Wells-Fargo Express; Frisco System, operating the United States Express; M. O. & G. Ry., operating the Wells-Fargo Express; Texas Traction Company, operating the Interurban Express.
8. **Substitution.** If it is not explicitly stated in the order that no substitution is permitted in case the variety ordered is sold out, we shall consider permission to substitute granted, and then put in place of the variety ordered, another, always with its correct name, and one of equal or better value, unless such is not in stock, when the variety will be left unfilled and the money for it returned.
9. In order to secure what you wish, send your order early in the season, before stock is sold. Orders received late in the season may expect to find assortments broken in any nursery.
10.  Please do not order articles not named in Catalog. We catalog only what we have for sale, and aim to sell only what we produce.
11. **Customers Will Generally Be Most Successful** in getting desirable assortments by leaving the selection, in part at least, to us, as we have much experience in testing and growing for market; but we desire everyone to have his or her choice as nearly as possible.
12. **GUARANTEE AND RESPONSIBILITY**—We send our thrifty and healthy stock, properly packed and in good condition, take railroad or express receipt "In good order," and are not responsible for losses or damages caused by delays. We do not replace trees that die under conditions over which we have no control, such as drouths, freezes, excessive rains, unsuitable soils, improper handling, and after-care. While we exercise the greatest care to have all our trees and plants true to label, and agree to replace all such as may by accident or oversight prove untrue to name, free of charge, it is mutually agreed and understood between the purchaser and ourselves that our guarantee of genuineness shall not in any case make us liable for any sum greater than originally received for such untrue trees or plants.
13. **It is to Our Own Interest** to give customers the best terms and selections possible. But we cannot prevent Drouths, Severe Winters, Early and Late Frosts, Insects and Rabbits, etc., from cutting, nor plants from dying by bad treatment in other hands, **hence we never insure Trees to live after leaving our possession**, but we do deliver stock in good order, true to name. In case we fail in these we replace at once or refund money. After stock is accepted, we replace none that may die after planting. Unsatisfactory stock must be reported at once on receipt of same to secure adjustment.
14. **We are Responsible to All of Our Customers** and to them only, for the character of the goods, and to them or their forwarders—express and railway companies—we guarantee to deliver stock in good order, true to name. With such delivery our responsibility ceases.
15. **Season for Shipping and Transplanting.** We begin digging strawberry plants October 15, **not earlier**, and other stock November 10, and continue almost uninterruptedly to dig and ship until March 10, November, December and February being the best months in which to transplant in the South.
16. **Trees and Plants by Mail or Parcel Post.** Small fruit trees, shrubs, grape vines, berry plants, etc., can be sent through the mails in packages of eleven pounds or less. The Parcel Post Zone rate does not apply on nursery stock. The rate on nursery stock by Parcel Post or mail is one cent for each two ounces (eight cents per pound) regardless of distance. According to this rate there is nothing gained by sending packages of 6 pounds or more by mail, for example a package weighing 11 pounds by mail would be 88 cents regardless of distance, while same weight package would go by express for 30 to 40 cents anywhere in the United States. A two pound package by mail would be 16 cents; by express would be 25 or 30 cents. A five pound package by mail would be 40 cents; by express 30 to 40 cents. Any package above 5 pounds would in most cases be cheaper by express. We will send heavier packages up to limit of 11 pounds by mail if customers so desire and remits money to pay for same. We only recommend the mail as a matter of economy for packages of 5 pounds and under.
17. **Prices and Terms of Prepayment by Express.** See page 29.

CERTIFICATE OF INSPECTION

Our Nurseries have been inspected by the State Inspector according to the laws of Texas and have been found free of San Jose Scale and all other insects and diseases that are placed under the ban. We also have complied with the requirements of the other States and have permits to ship nursery stock from our nurseries into all the States except Virginia, the fee there being prohibitive.

Telephone Connection—Long Distance and Local.

Address: T. V. MUNSON & SON, Denison, Texas.

Apples

Plant Apple Trees in the South 20 feet apart north and south by 30 feet apart east and west, requiring 73 trees per acre. Best corn or cotton sandy land is suitable.

Read Bailey's Field Notes on Apple Culture, price 75 cents; or American Apple Orchard, \$1.00.

This list has been well tested, and found uniformly and continuously successful in the Southwest. The varieties ripening in June and July are the most successful in South Texas. Late varieties do little or no good there. All the varieties named succeed well in Northern Texas and Oklahoma. The extra early apples should be more extensively planted in the South, as they are one of our most certain and profitable fruits.

We have all of the varieties named below budded upon the best apple stock, sizes 2 to 3, 3 to 4 and 4 to 5 feet.

We can supply some of the varieties named grafted, in one and two year trees. Some of the two year trees in the 5 to 6 feet heavy grade.

IN ORDER OF RIPENING

JUNE IN TEXAS

Early Harvest. Vigorous, abundant, yellow, large; good, tart; table, cooking.

Red June. Slow, prolific; red, small; good, tart; market, table. One of the most valuable for heavy planting in the South.

Fanny. Vigorous; productive; red, large; excellent; market, table.

JULY

San Jacinto. Like a very large Red June apple, of which it appears to be seedling, coming in just as the Red June goes out. Tree vigorous and prolific; very productive. A variety of the highest merit both for market and table. Fruit hangs to the tree remarkably well and a fine keeper for an early apple.

American Summer. Medium to large; roundish conical; dull red stripes on a pale yellowish ground; rich, juicy and one of the best.

AUGUST

Bledsoe. (Texan.) Very fine, prolific, striped, large; excellent, table, market.

Jonathan. Good grower, prolific; red, medium; fine, market, table. One of the most successful apples grown in the Southwest.

Maiden Blush. Large, oblate; evenly shaded red cheek on clear pale yellow ground. Flesh white, sub-acid, tender. Free spreading.

Texas Red. One of the most highly esteemed apples in East Texas; large, solid red; fine; excellent keeper.

Rome Beauty. Large, roundish, mostly covered with bright red on pale yellow ground. Tender, of good quality.

Doyle. Originated in East Texas where it is highly praised. Large, striped, with high color.

OCTOBER AND LATER

Bradford. (Kentucky Streak.) Strong, abundant; striped, large; very good, market.

Ben Davis. Tree healthy, vigorous, an abundant bearer; fruit large, handsome, striped; flesh whitish, tender, juicy, sub-acid, only fair in quality. Popular on account of its good bearing quality.

Stayman's. (Stayman's Winesap.) Medium to large; oblate, conical; greenish yellow, mostly covered and indistinctly splashed and mixed with dull dark red, with numerous medium gray dots; flesh yellow, firm, tender, juicy, mildly sub-acid, aromatic; quality best. Another seedling of Winesap, originated in Kansas; is much larger, more beautiful in color and better in quality and equal or better keeper.

Walker Late. Large, red, fine; very late keeper.

Winesap. Medium; roundish conical form; mostly covered with red, on yellow ground; flesh fine, crisp, with a rich, high flavor. One of the best for market, dessert, or for general winter use.

Gano. Similar to Ben Davis, but deeper in color, and better in quality. Tree very hardy and vigorous. A rapid grower. An early, annual and prolific bearer. A valuable late winter apple.

Arkansas Black. Vigorous, abundant; dark red, medium; excellent market; seedling of Winesap.

Kinnaird. Strong, spreading tree, prolific; red, large; a superb Southern winter apple; the best of all Winesap seed-

lings. Flesh pale yellow, crisp, fine grained; of fine quality. Tree longest lived of all varieties tested with us; originated in Tennessee.

York Imperial. Fruit large, nearly round; whitish, shaded with crimson, thinly sprinkled with light gray dots; flesh yellowish, firm, crisp, juicy, pleasant, mildly subacid. Very good. Mid-

winter.

Arkansaw (Mammoth Black Twig; Paragon). Size large, roundish, slightly flattened; color a dark mottled red; flesh yellow, fine-grained, with a mild, pleasant, subacid flavor. Tree a strong grower and abundant bearer. Large fruit and better tree than Winesap, of which it is a seedling.

Crab Apples

Prices: Same as Apple

Whitney. Vigorous, prolific; striped, large; cider, jelly, preserves.

Hyslop. Vigorous, prolific; crimson, large; ornamental, preserves.

Pears

Pears do well on a variety of soils—clay loam, sandy, gravelly and red soil. The soil must not be wet, should be drained, if not naturally drained. The knife is the best remedy for blight. Keep it cut off as fast as it appears. Cut back to 3 or 4 inches below where the twig or limb has blighted. Keep this up from time to time as the blight appears, and you can keep it down. We have found here and there that there is less blight where the trees are not cultivated after the second year. Plant 18 feet apart each way, requiring 135 trees per acre.

Seckel. Small, short, pear-form; yellowish brown, with russet-red cheek; rich, juicy and melting. August.

Bartlett. Large, pear-shaped; yellow, rich, juicy and very fine. The most popular variety of its season. Early in August.

Brown Beurre. Large, brown; firm; best quality, hardy.

Garber. Equally as hardy as the Le Conte or Kieffer, of same class of pears. The growth and appearance is very much like Kieffer; ripens one month sooner

and of better quality.

Beurre d'Anjou. Rather large; obtuse form; greenish yellow, dull red cheek; rich, melting, and buttery.

Kieffer. Originated near Philadelphia. Supposed to be a seedling of Chinese Sand Pear crossed with the Bartlett. Size large, very handsome; skin yellow, with a bright vermilion cheek; very juicy, with a musky aroma; quality good when ripened to perfection. A very young and prolific bearer. As near blight-proof as Pear can be called.

Quinces

Plant 10 to 12 feet apart each way. Quinces need very rich, deep, well-drained soil; they are better for careful culture.

Meech. Very large and of best quality. We only propagate one variety of quince, as it is a fruit not commercially successful in the Southwest, and only recommended for amateur purposes. This variety is prolific, but requires age before bearing well. This is true of other varieties tried here.

Figs

Hardy in South Texas. In North Texas unprotected tops will sometimes winter kill, but when frozen tops are cut off, new shoots will come and bear fruit late in summer of same season. Like rich garden soil. Plant 10 feet apart.

Magnolia (Dalmatian). Large, light yellow, with slightly brown cheek. Of excellent quality. Unusually productive. Fine for preserves.

Black California. Large, dark purple, very attractive.

Mulberries

Plant 20 to 25 feet apart, requiring 109 trees per acre. Flourish in any soil or situation.

Munson. One of the largest, most prolific and best mulberries of the Russian class. Originated by us, selected from among thousands of varieties grown from seed. The branches in fruit look like ropes of big berries. Earlier than Hicks.

Hicks Everbearing. Profuse bearer of fruit for three months; fine grower for shade; the best of all trees for the fowl yard, as the fowls greedily eat the berries. Later than Munson.

Plums

Named in the order of ripening.

Plant 18 feet apart each way, requiring 135 trees per acre. Succeed on thinner land than peach, with more clay, and thrive where the peach will. All succeed well nearly everywhere.

Read Plums and Plum Culture (Waugh), \$1.50.

✓ **Funk Early.** Abundance crossed with an early Chickasaw variety. Tree vigorous and healthy, productive, free from rot and curculio. Fruit of good medium size, dark bright red, quality very good. Earliest of all to ripen. Well tested and valuable.

✓ **May Beauty.** Same parentage as Funk Early. Ripening soon after, of similar description but of larger size. Well tested.

Red June. Early, ripens with early peaches; medium to large; good bearer; red all over; fruit pointed and flesh yellow, and very fine in quality.

Milton. A cross of Wild Goose with some Americana variety. Better in quality than Wild Goose, nearly as large. Bright red with small white dots, very handsome. Late bloomer, but ripens early, just before Abundance. Persistent to tree after ripening. Resists rot and curculio well.

Abundance. Medium if allowed to mature as the fruit sets on tree, but large when fruit is properly thinned. As this variety is inclined to overbear, it is best that the fruit be thinned by taking at least one-half to two-thirds the fruit off when size of small marbles, the remaining fruit will be of extra size to more than make the same yield. Roundish, skin yellow, washed with purple with a bloom; flesh yellow, juicy, sub-acid with apricot flavor, quality superb.

✓ **Roy.** Same parentage as Funk Early. Similiar in description to May Beauty, of which it is a sister, but ripens after it. Well tested.

Burbank. Large; clear cherry-red; flesh deep yellow; very sweet and agreeable flavor. Very prolific.

Gonzales. Fruit very large, meaty, of brilliant red; finest of flavor; good shipper and keeper. Tree very strong and immensely productive. Very valuable.

America. A hybrid of Robinson with Abundance. Tree very thrifty, symmetrical, spreading; fruit medium to large, bright golden ground with pink cheek, dotted white; flesh firm, stone medium to large, cling. Considered one of Burbank's best productions. Very valuable.

Wickson. One of Burbank's most remarkable hybrids; between the Kelsey and Simon plums. Very large, heart shaped; dark crimson, firm, of finest quality. Blooms very early, and will succeed in localities having late springs. Nothing finer in appearance or quality is known among plums.

Normand. Large, heart-shaped; yellow flesh; yellowish green skin. Of finest quality. Much prized by ladies for preserving.

Satsuma. Large, heart-shaped, with skin and flesh blood red to the seed. Much used for pickling.

Miner. Vigorous, prolific, healthy, old variety. Above medium size; good quality; free from rot and curculio. Very sure cropper.

Minco. Produced by us. Seeding of Miner pollinated by Wayland. Tree very vigorous, healthy and handsome. Fruit large, bright red, fine quality, freestone. Very late.

Wayland. Tree very vigorous and prolific, healthy. Medium size, olive shape fruit of rich bright crimson, specked with white dots. Not damaged by disease or insects.

Ward. A wild hybrid found in Clay County, Texas, parentage unknown. Medium, heart-shaped, bright crimson, specked with white dots; firm, meaty; of very good quality when thoroughly ripe. This description is of fruit on the original tree, ripe in the early part of September.

NOTE:—Our stock of Funk Early, May Beauty, Roy, Ward and Minco is very limited this season, and the price of trees of these is double the price of the other varieties. See Price List, Page 30.

Apricots

Plant 18 feet apart each way, requiring 135 trees per acre. Succeed best in limestone soil; bloom very early in spring. Should be treated like peaches. Very successful in most parts of the West on high ground.

Moorpark. Large, yellowish green with brownish red on sunny side, marked with numerous dark specks, flesh bright orange, parts readily from the seed; grown largely for commercial purposes, especially for canning and drying. Tree vigorous and prolific. June.

Royal. European, large, slightly oval, dull yellow with red next the sun, flesh orange yellow with rich, vinous flavor. An important commercial variety.

Peach Apricot. We are at present unable to give definite description, as we have not yet fruited this variety, but has

fruited in the State, and said to be similar to Early Golden.

Cluster. This valuable variety is claimed to have never missed bearing any season since its introduction. Originated in Texas, from seed of Russian apricot.

Nellie. One of the several varieties found in Mexico by Gilbert Onderdonk and introduced by the Department of Agriculture. Mr. Reisen, of San Saba county, fruited several of these Mexican introductions, and the Nellie appeared to be the best of the lot. We have not fruited it here.

Cherries

Plant 18 feet apart each way, requiring 135 trees per acre. Require very best drouth-resisting soil. They do better on limestone or gravelly soil than sandy soils. We grow only varieties of the Duke and Morello class (Sour Cherries), as they are the only classes that will succeed in this part of the South. The Sweet Cherries (Hearts and Bigarreus) are not successful here.

Early Richmond (Morello or Amar-elle). Medium, flattened, light pink. Tree vigorous, spreading; early. May.

English Morello. Medium, roundish, dark red, flesh and juice dark, acid. Tree dwarfish and productive. Ten days later than Early Richmond.

New Century. Thought to be a combination of the Morello and Duke types; originated in Grayson county, Texas, where the original has fruited very suc-

cessfully for a number of years. Fruit medium to large, light red, of good quality. Tree is of the Duke type, strong, upright, foliage rather broad, and free from the mildew.

Dyehouse. About a week earlier than Early Richmond. Large, good quality, small pit. Light red.

Baldwin. Originated in Kansas. Fruit large, round, dark but transparent red. Slightly sub-acid, but rich.

Pecan Trees, Grafted Varieties

Schley. Size medium to large. $1\frac{1}{2}$ to $1\frac{3}{4}$ inches long; oblong, somewhat flattened; light reddish brown with a few small markings of purplish brown; shell thin, separating easily from the kernel; kernel full, plump, bright yellowish brown in color; flavor rich, nutty, in quality one of the best. Tree a good grower and on the whole a very excellent variety. One-year trees only.

Stuart. Nuts large or very large, $1\frac{3}{4}$ to 2 inches long, oblong with brownish shell, strongly marked with dark color. Shell of medium thickness and of very good cracking quality. Kernel full, plump, bright colored. In quality one of the best, the flavor being rich and sweet. A heavy bearer. Tree a strong grower, reaching an immense size, with large foliage.

Van Deman. Large to very large, from $1\frac{3}{8}$ to $2\frac{1}{8}$ inches long, rather slender, pointed at both ends. Color reddish

Seedling Pecans. We have seedling trees grown from selected nuts of isolated trees of unnamed varieties. However, like peach trees, no two will be alike and will vary from the parent tree. The kind of nuts that the seedling trees will bear cannot be determined until each tree begins to fruit.

brown with purplish brown markings. Shell of medium thickness; cracking quality excellent. Kernel full and plump, bright brownish yellow; flavor sweet and good. Tree is vigorous, healthy, with large bright foliage. Altogether, one of the most desirable varieties.

Russell. A medium or large-sized nut, $1\frac{1}{2}$ to $1\frac{3}{4}$ inches long, oval and pointed, grayish brown with numerous small purplish black markings. Shell very thin, of excellent cracking quality. Kernel plump and of good quality. This variety is a good grower, with small, clean foliage. Bears well and is very satisfactory. 1 to 2 ft. trees only.

Texas Prolific. One of Mr. E. E. Risien's productions. Long, $1\frac{1}{2}$ x $\frac{7}{8}$. Shell thin. Quality best. No trees this season.

Money-maker. Large, round, kernel comes out whole. Heavy bearer.

Pabst. Similar to Stuart. A leading commercial variety.

Persimmons

Japan Persimmons (Diospyros Kaki)—These were introduced from Japan about seventy years ago. They are the royal fruit of Japan, their best native pomological product. Leaves are broad and burnished, the trees vary from shrubby growth of eight to ten feet high, to a much larger size in different varieties. Usually very prolific, often bearing at three years of age.

Costata. Medium size, conical, pointed, somewhat four-sided; diameter $2\frac{1}{8}$ inches longitudinally and $2\frac{3}{8}$ inches transversely; skin salmon-yellow; flesh light yellow, dark flesh, and seeds occurring seldom; astringent until ripe, then very fine; one of the latest to ripen; a good keeper. Tree distinct; a rapid, upright grower, foliage luxuriant.

Hachiya. Large to very large, varying short point; very showy; diameter $3\frac{3}{4}$ inches longitudinally and $3\frac{1}{2}$ inches transversely; skin dark bright red, with occasional dark spots or blotches and rings at the apex; flesh deep yellow, sometimes having occasional dark streaks, with seed. Astringent until ripe, then very fine. The largest and handsomest of all. Tree vigorous and shapely.

Okame. Large, roundish oblate, with well-defined quarter marks, point not depressed; diameter $2\frac{3}{8}$ inches longitudinally and $3\frac{1}{8}$ inches transversely; skin orange-yellow, changing to brilliant carmine, with delicate bloom and waxy, translucent appearance; light clear flesh when ripe, with light brown center around the seeds, of which it has several; loses its astringency as soon as it begins to ripen; quality fine. Tree vigorous and a good bearer.

Hyakume. Large to very large, varying from roundish oblong to roundish oblate, but always somewhat flattened at both ends; generally slightly depressed at the point opposite the stem; diameter $2\frac{3}{4}$ inches longitudinally and $3\frac{1}{8}$ inches transversely; skin light buffish yellow, nearly always marked with rings and veins at the apex; flesh dark brown, sweet, crisp and meaty; not astringent; good while still hard. The tree is of good growth and a free bearer.

Dai-Dai-Maru. Very large. Tomato-shaped. Pale yellow.

✓ **Chinese Persimmon, Ta-Mo-Pan.** (Meaning in Chinese "large grindstone.") This remarkable persimmon was obtained by the Department of Agriculture collector of plants in Northern China, in the Ming Tombs Valley. It is said to endure more cold than any

of the Japanese varieties. With us for three years, it has been perfectly hardy. It is said to have the largest fruit of any of the known varieties, reaching as much as five inches in diameter, much flattened and with a peculiar suture extending around it equatorially. Flesh bright orange, free from astringency at all times; firm and of high quality. It promises to be hardy as far North as Kansas. It is exceedingly scarce in this country, and ours are the first trees offered for sale. We have only a few grafted on native persimmon roots, very fine trees.

✓ **Josephine (American Honey) Persimmon.** We have a tree of the native Persimmon found wild in Missouri by Samuel Miller, and by him named Josephine, bearing profusely of large, clear honey-colored fruit of finest quality, preferred by all to even the finest Japanese kinds. The tree was moved into our grounds among the Japan varieties, and continues to fruit abundantly. It has few small seeds in comparison with most varieties. All things considered, it is the finest Persimmon known to us. The Josephine, to bear well, needs one or two of its seedlings planted near it. Grafted trees will bear the identical fruit as the original. Seedling trees will vary, but most of them will be similar; a few may be hybrids, as the original tree stands in orchard with Kawakami and Japanese varieties. About one-half of the seedling American Persimmons bear fruit, the others are male; hence in filling orders we put in two trees for every one ordered of the seedling trees. The sex of the seedling trees can not be determined until the trees become old enough to bloom. It may happen that all of a lot of seedling trees might be pistillate, or female; or all staminate, or male, but this would rarely happen in a lot of four or more trees. We have no grafted trees of any male.

✓ **Kawakami Persimmon.** A hybrid of one of the best Japanese with the Josephine. Fruit 2 inches in diameter. Tree hardy as far north as Illinois. We have grafted trees only this season.

Peaches

PRICE LIST ON PAGE 30

Directions for Cultivating.—A sandy loam is best suited to the Peach, but it will adapt itself to almost any soil, provided it is well drained. Plant one-year-old trees 18x18 feet; cut the tree back to 18 to 24 inches, as it is always best to have a low-headed tree. In the spring, after the growth has started, remove all but three branches and let these be distributed so that the tree will be well balanced. For the first two years fertilize with well-decomposed barnyard manure, or a mixture of one part of cotton seed or bone meal to two parts of acid phosphate. Apply $1\frac{1}{2}$ to 2 pounds to each tree. After the third year, avoid nitrogenous fertilizers and use a fertilizer containing a good percentage of bone phosphate and potash and a small percentage of nitrogen. Prune every year by cutting off one-third of the previous year's growth. The head of the tree should be broad and open, so as to allow free circulation of light and air.

Borers. Go through your orchard in March and where you find gum around the surface, clean away the dirt and, with a knife or some sharp-pointed instrument, follow up the borers and remove them; then throw around the tree a small quantity of lime and ashes. This plan, if rigidly enforced, will keep borers down, give you better fruit, and greatly extend the life of the trees.

Thinning. When a tree sets an overload, it pays to thin out the fruit, even if two-thirds of the crop has to be taken off. It relieves the tree, and the remaining fruit will grow to be large, fine flavored, and handsome, whereas if the tree is left overloaded, the fruit will be small, inferior, of poor flavor. The thinning should be done just when the young fruit is about the size of marbles, and thinned out so that the peaches will be not less than 3 to 4 inches apart on the tree. The extra price for the thinned fruit will more than pay for the fruit destroyed.

PERIOD I—MAY 20 to JUNE 5

Mayflower. (North Carolina.) Red all over; large, nearly free. Ripened in 1912, 10 days ahead of Victor.

Victor. (N. T. Pirtle, Smith Co., Tex.) Productive. White with attractive blush cheek. Ripens throughout, which is not usual with extra early varieties, such as Alexander. Semi-cling; seed small.

Early Wheeler. (E. W. Kirkpatrick, Collin Co., Tex.) Prolific. White blush cheek, flesh white, extra firm, with true clingstone flavor. The best shipper among early varieties. Cling. 50c each; \$5 doz.

Alexander. Larger than Victor, brighter red, semi-cling; an old variety. There are several strains of this variety. By testing all we retained the best strain.

Arp Beauty. Productive. Apex flat. Skin yellow with bright-crimson cheeks. Flesh yellow, free when fully ripe and firm. Quality the best of its season. Seed medium. Almost identical in every particular with Yellow Swan.

Strout. (Vinita, Okla.) Medium size. A true free stone, with firm flesh, white streaked with red, often of pronounced blood color. Sure bearer and free from worms.

PERIOD II—JUNE 1 to JUNE 10

Dewey. (J. D. Husted, Ga.) Productive. Skin orange yellow, nearly covered with dark crimson, more fuzzy than Alexander and resists rot better. Flesh yellow, moderately firm, free when fully ripe. Better in quality than any ripening earlier. Seed small.

Hynes Surprise. (E. F. Hynes, Mo.)

Very prolific, apex small, pointed, without tit. Skin creamy white, little fuzzy, covered with dots and mottlings of pinkish crimson. Flesh white, free when well ripened. In quality equal to Dewey. Little attacked by rot. Seed small.

Mamie Ross. (John Ross, Dallas Co., Tex.) Sure, prolific. Skin rather fuzzy, creamy white with red cheek. Flesh white, rather soft, of fair quality, semi-cling. Seed medium. Has proven a profitable market peach.

Texas King. From East Texas. A peach of Mamie Ross type of better quality. The hardiest in bud of any variety recorded, making it a very sure bearer. Fully as large and well colored as Carman. A favorite in New Mexico.

PERIOD III—JUNE 10 to JUNE 20

Carman. (J. W. Stubenrauch, Limestone Co., Tex.) Very vigorous, sure and prolific. Skin creamy, covered with stripes and splashes of crimson, rather fuzzy. Flesh of better quality than Mamie Ross. The best peach of its season. Nearly free. Seed medium. A very valuable commercial variety.

Slappy. (S. H. Rumph, Ga.) Prolific. Tit large, suture distinct, sides uneven. Skin quite fuzzy, rich lemon yellow, more than half covered with crimson. A bright showy peach. Flesh yellow with little red at stone, firm as Elberta, of better quality, perfectly free. Seed medium. The finest commercial peach earlier than Elberta.

PERIOD IV—JUNE 20 to JULY 1

Family Favorite. (W. H. Locke, Fanin, Co., Tex.) From Chinese Cling crossed with some other good peach. Productive. Skin quite fuzzy, clear creamy white with rich pink blush on one side. Flesh white, tint of red at stone, free, excellent quality. Seed medium. Introduced by us in 1880, and has become a valuable standard.

General Lee. (P. J. Berckmans, Ga.) Sure and prolific. Tit broad and short. Skin creamy, one-half next to stem covered with mottled dull red, little fuzz, much resembling Chinese Cling. Flesh white, red at stone, cling, quality excellent; firmer and better than Chinese Cling. Seed rather large.

PERIOD V—JULY 1 to 15

Munson Cling. (T. V. Munson, Tex.) From seed of Elberta. Equally prolific with Elberta. Tit broad, short, suture distinct, sides nearly equal. Skin fuzzy, orange yellow, half covered with bright crimson mottling. Flesh yellow, firm as Elberta, of better quality, juicy. The showiest cling of its season, and the best. Seed large. Special price.

Elberta. (S. H. Rumph, Ga.) Cross of Chinese Cling with Crawford Early. Sure and prolific. Nearly globose when fully developed, the largest specimens measuring 3x3, having little or no tit, suture shallow, sides nearly equal. Skin little fuzzy, orange yellow, more or less covered with crimson, according to soil and exposure. Flesh firm, of fair to good quality, sometimes a little bitterish. Free stone. Seed large. The leading commercial variety.

Chinese Cling. (Originated from seed brought from Shanghai, China.) Spreading habit, healthy, not very prolific. Probably the largest peach in cultivation. Skin creamy with short fuzz, mottlings of dull red covering one-third to one-half of surface next stem. Flesh white with little red at seed, tender, very juicy, sprightly sub-acid. It is the parent of more fine commercial varieties than any other peach in cultivation, and yet not a valuable commercial variety itself.

Superb. (T. V. Munson, Tex.) From seed of Early Rivers crossed with Mountain Rose. Vigorous and prolific, one of the most resistant against late frosts. Tit very small or wanting. Skin creamy white, one-third to one-half covered with bright crimson. Flesh white with very little red at seed, firm, of best quality, free stone. Seed small. Fine reports of it from many places.

PERIOD VI—JULY 15 to AUGUST 1

Gold Dust. (J. C. Evans, Mo.) Prolific. Tit small. Skin quite fuzzy,

orange, mostly covered with bright crimson, handsome. Flesh orange, very firm, a little red at stone, best quality, cling. Very pretty.

Munson Free. (T. V. Munson, Tex.) More certain and prolific than Elberta. Tit small, suture distinct, slightly larger on one side. Skin quite fuzzy, greenish yellow, mostly covered with crimson. Higher color and better quality than Elberta. Flesh yellow, red near pit, firm, good to very good quality. Seed medium. Special price.

Belle of Georgia. Large; skin white, with red cheek; flesh white, firm, and of excellent flavor; the fruit is uniformly large and showy; very prolific bearer. A seedling of Chinese Cling. The standard market variety of its season.

Sylphide. Medium, white cling, of best quality. Sure and heavy bearer. Best to thin out fruit, so tree will not carry overload.

Bequett Cling. Large, fine, handsome. White flesh with bluish red skin.

Bequett Free. (Calif.) Prolific. Suture indistinct, sides equal. Skin creamy, mostly covered with clear red of fine appearance. Flesh white with little red next pit, firm, of high quality, free. Seed medium.

PERIOD VII—AUGUST

The ripening period of late varieties of peaches cannot be definitely given as they will vary much from year to year, according to weather conditions. We have known the following varieties to vary as much as three to six weeks. We name them as near the average date as possible.

Columbia (Mr. Cox, Ga.) Indian type. Skin mottled brown, underlaid with dull orange yellow. Flesh rich, yellow, buttery, high quality, free.

Tarbell. Large, pale yellow, free stone, of the finest quality. Very showy.

Ringgold. (Wilkins, N. J.) Seedling of Heath Cling and an improvement on that variety. Productive. Skin creamy white with streaks of blush near stem end. Flesh white to the seed, of best quality and sweet. Cling.

Henrietta. (Levy Late. Originated in Ky.) Tit prominent. Skin orange yellow, with crimson cheek. Flesh yellow, firm, sweet and of high quality. Cling. Very handsome.

Raisin Cling. (Coweta Co., Ga.) Supposed Columbia X Heath cross. Skin dull white, covered with mottled reddish brown. Flesh white, tinted with red. The finest quality of any cling known to us. Fine for sweet pickles.

Salway. (Thos. Rivers, England.) Skin rich yellow, covered with crimson.

Flesh rich buttery yellow, fine for canning. Free.

Dulce and Bell October are dropped, as they have proved by test to be very similar to and ripen at same time as Salway. Salway being equally good, older and better known, is retained.

PERIOD VIII—SEPTEMBER AND LATER

The varieties named below generally ripen in September, but, as with all late varieties, the season will vary. Some seasons those included in this ripening will hold on until October, while in other seasons they will ripen in the latter part of August.

Barnes. (Barnes Parker, Bell Co.,

Tex.) Productive. Contains Indian and Mexican blood. Very sure and prolific. Skin dull yellow, covered with reddish brown mottlings. Flesh yellow with red next to seed. Cling.

Bonanza. (T. V. Munson, Tex.) Sure and productive, and in drouthy seasons will carry its crop to maturity. The best of the late varieties, although the specimens will be small if there be drouth. Tit prominent and broad, suture distinct, sides unequal. Skin creamy white, with blush on one side near stem end. Flesh pure white with red around seed, firm, free. Seed small.

Success. (T. V. Munson, Tex.) Ripe in October; medium yellow, cling, fine quality.

Blackberries

Plant 2 feet apart in rows, rows 7 feet apart, requiring 3,112 plants per acre. Succeed anywhere.

Read Fuller's Small Fruit Culturist.

McDonald. Appears to be a hybrid between a blackberry and dewberry. Large and good quality. The flower being pistillate needs a staminate or perfect flowering kind near by to pollinate; when thus pollinated, it is very productive.

✓ **Sorsby May.** A blackberry larger than Early Harvest, and ripens about a week earlier. Very productive and a good shipper; very valuable on account of its extreme earliness.

Dallas. Very vigorous, drooping, thorny, productive, large, fine. This is

Price, \$1.50.

proving to be a very valuable market variety.

✓ **Robison.** Very vigorous, upright, prolific, uniformly very large; of best quality. Sells at the highest market price. Originated by Willard Robison, at Cisco, Tex. It has fruited here for a number of years, and has proven itself one of the most valuable varieties in cultivation. It endures the climatic hardships most excellently.

DEWBERRY.

✓ **Mayes.** (Austin's Improved, Austin-Mayes.) Very large, early, prolific.

Strawberries

Plant 16 inches apart in rows, rows 3½ feet apart, requiring 9,000 plants per acre. Deep loamy, sandy soil, with clay sub-soil is preferable.

Read Fuller's Strawberry Culturist. Price, 25 cents.

We test nearly all varieties of any promise as they come out. The following are the cream for this climate. The varieties are named in the order of ripening. Staminate kinds will bear alone. Pistillate varieties will require a staminate variety to be planted near them to pollinate them. S—Staminate. P—Pistillate.

Excelsior. (S) Medium size, dark red, almost round, fine shipper and an extra early sort.

St. Louis. (S) Large, blunt end, light red, seeds prominent. Plant very strong.

Lady Thompson. (S) Blunt, top-shaped, medium to large, bright red.

Klondike. (S) Large, blood red skin and flesh, fine flavor peculiar to itself.

Mellie. (P) Bright showy red. Cylindrical, pointed, with short neck. Very productive. Proved to be best to come through drouth of past spring.

Parker Earle. (S) Berry conical, large, with a neck; glossy, scarlet crimson. Needs rich, well-drained soil; does best in hill culture.

Raspberries

Plant same distance as Blackberries. Need best drouth-restisting soil, on eastern or northern slope.

Kansas. A very large, excellent fruited black-cap, one of the best for a dry, hot climate.

Cardinal. Very vigorous and prolific, dark red, very large. Originated in Kansas. Succeeding very well here. One of the most prolific varieties.

Grapes

We lead all competitors in this field.

The Grapes have constantly been the most certain and profitable of any fruits that we have grown.

CULTURE

We have prepared a pamphlet on the culture of grapes which is a reproduction of Chapters V and VI from "Foundations of American Grape Culture," and consists of 20 pages. This pamphlet will be sent free to all purchasing grape vines to the amount of \$2 or more. To others it will be mailed for 25 cents.

Read "Foundations of American Grape Culture." Price, \$2.00.

"American Grape Growing and Wine Making." Price, \$1.50.

PRICES. See page 29

Unless 1-year vines are especially ordered, we will fill all orders with 2-year vines, if in stock; if no 2-year vines of the variety ordered, will send first class 1-year. No difference in price between the 2 and 1-year vines. The price is based on 1-year vines. Either age will come into bearing at same time after transplanting.

TO AID IN SELECTING VARIETIES FOR THE DIFFERENT REGIONS

While all of the varieties we list succeed to a greater or less degree here at Denison, Texas, on warm sandy soils with clay subsoil, there are other soils and regions where only certain varieties are successful. At the end of the description of each variety will be found capital letters indicating the regions for which they are recommended.

The letter **G** indicates for the Gulf Coast region, or 100 miles back from the Gulf north of Corpus Christi.

The letter **R** indicates those for the Rio Grande region and all south of San Antonio, and for El Paso and Pecos River regions; Arizona and California.

The letter **B** indicates those for Black Waxy and Limy soils throughout the south.

The letter **E** indicates for more or less sandy soils of East Texas and other moist regions of the Southern States north to Arkansas and Kentucky.

The letter **P** indicates for the Red Plain region of western Texas north of T. & P. Ry.; western Oklahoma; Oregon and Washington.

The letter **S** indicates for the Staked Plains west of the Red Plains region; western Kansas, and eastern New Mexico.

The letter **M** indicates for the central Mississippi region, and Atlantic slope, north of Carolina to latitude of Cincinnati and St. Louis.

The letter **N** indicates for New England States, New York, and southern Ontario.

The letter **W** indicates for Wisconsin and west to Rocky Mountains.

For decided success in the moister regions, mildew and rot must be prevented by spraying.

All the varieties possessing Post-Oak Grape blood, in order to get best results in cropping, should be treated the same as Herbemont, that is, plant wide apart, as much as twelve to sixteen feet in the rows, and have long arm pruning. They do especially well upon the Munson Canopy Trellis, mentioned in Foundations of American Grape Culture, page 224. Distance apart to plant and kind of pruning required for best results are mentioned with each variety.

EXPLANATIONS OF ABBREVIATIONS AND SIGNS USED IN THE DESCRIPTIONS OF GRAPES ON THE FOLLOWING PAGES

All bearing grapes have one of two kinds of flowers—both kinds are pistillate, but one has perfect stamens and will bear alone; the other has imperfect stamens and will require perfect stamen variety blooming at the same time planted near to render the imperfect stamen variety fruitful. Some of the best varieties are those having imperfect stamens. In the following descriptions characters are given after the name of the variety which will indicate to the reader the kind of flower and date of flowering. So in selecting mates for the imperfect stamen kinds, select those varieties with perfect stamens, blooming within three days earlier or at the same time. The perfect flowering kinds are indicated with an asterisk (*); the imperfect stamen kinds with the dagger (†). The date of flowering is indicated immediately after such sign. As all grapes bloom here in April and May, these two letters, (A) for April, and (M) for May, are used, the figures following these letters indicate the date in that month.

All dates mentioned are for Denison. While they will vary in other sections, the relative position will remain the same. This subject is fully treated in *Foundations of American Grape Culture*, pages 112, 131 and 212.

DESCRIBED IN ORDER OF RIPENING

(Many of these varieties have full page half tone illustrations in "Foundations of American Grape Culture.")

PERIOD I—LAST OF JUNE

✓ **Pearl of Casaba.** (See under *Vinifera* list, page 21.)

✓ **Headlight.** (†A19) Hybrid of Moyer with Brilliant. Vine slender, but more robust than Delaware, and making much longer vines, less attacked by mildew, leaves resembling those of Brilliant, but not so large; clusters small to medium, very compact, shouldered; berries clear, dark red, globular, medium or above in size, very persistent. Skin thin, tough; pulp tender, very sweet, almost equal to Delaware in quality and the finest in quality of any American grape ripening so early. Seeds few. E. P. S. M. N. R. W.

PERIOD II—JULY 1 to 10

✓ **Green Mountain.** (*A17) Apparently Niagara-Delaware hybrid. Clusters same shape, but larger than that of Delaware. Berries medium, slightly ovoid, greenish white; skin thin and tender, but not given to cracking; pulp tender, very sweet and high quality. Very prolific.

✓ **Brilliant.** (*A17) (Lindley x Delaware.) Growth strong. Vine endures winters anywhere up to 15 degrees below zero. Clusters large, cylindrical, or somewhat conical, often shouldered, open to compact. Berries large, globular, light to dark red, translucent, with a thin bloom, very handsome when well ripened; skin thin, rather tender, but seldom cracks; pulp meaty, yet very tender, melting, and delicious, usually preferred for table and eating fresh to Delaware. Seeds readily part from the pulp. Ripens just before the Delaware and yields on an average fully twice as much. It ships about equally as well or better than Concord. Its foliage is less at-

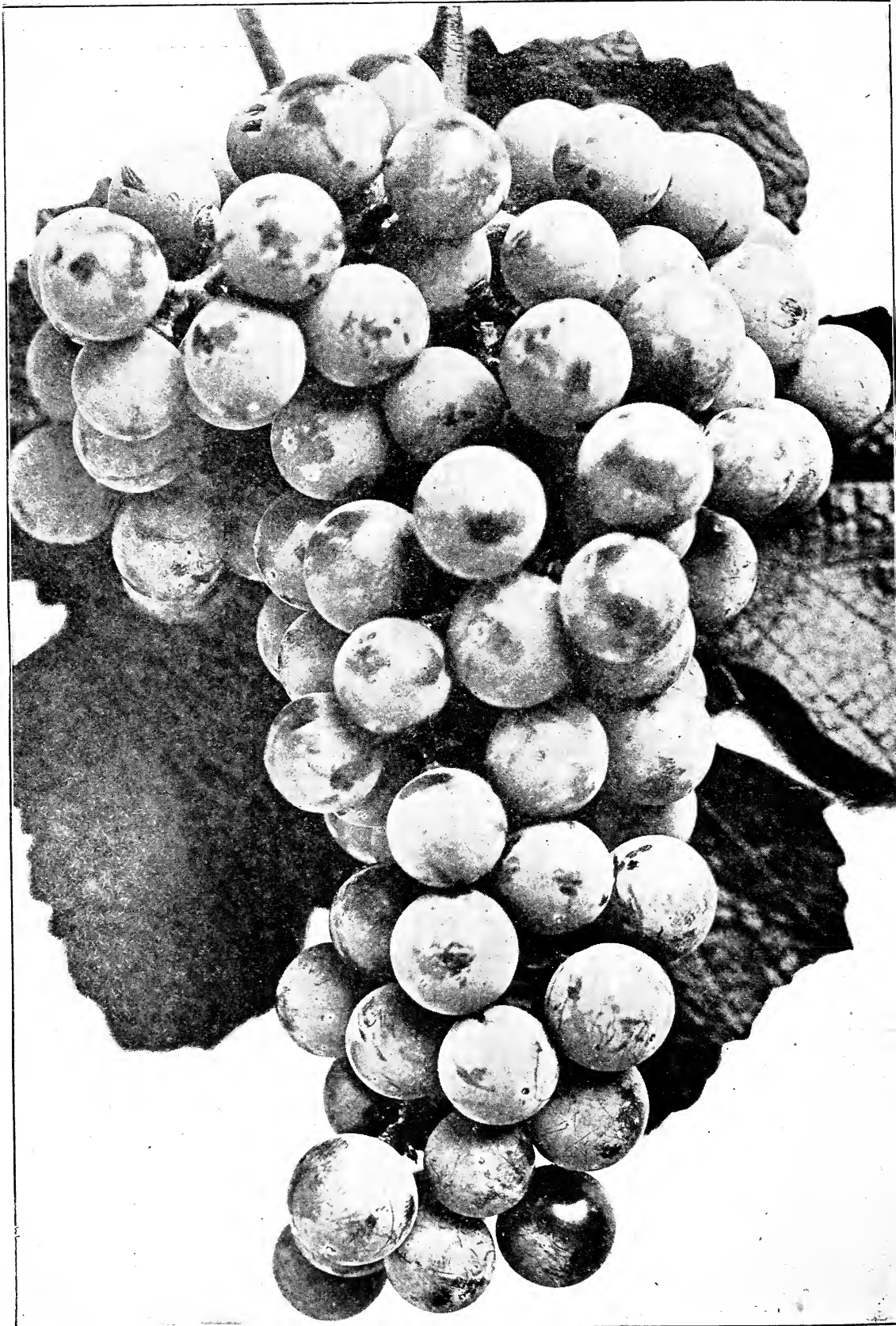
tacked by mildew than Delaware, and spraying with Bordeaux mixture will entirely prevent this. R. E. P. S. M. N.

✓ **President.** (*A18) Pure seedling of Herbert. Has a much better vine, which is strong, healthy, and prolific. Flower perfect. Cluster medium, compact; berry large, black, persistent, does not crack. Ripens with Moore's Early and of far more value in the South than that variety. Quality excellent, much better than Concord. R. E. P. S. M. N. W.

✓ **Manito.** (†A20) Hybrid of America and Brilliant. Growth very similar to America, endures extremes of climate very well. Clusters long, cylindrical, rather open, with long peduncle; flowers perfect, bears well alone, but better among other kinds blooming with it, very prolific; berries medium, globular, persistent, dark purple, with white specks; very distinct and unique in appearance; skin thin and tough, pulp very tender, juicy, sweet and agreeable, parting from the seeds with ease. Ripens very early, about with Moore Early, packs beautifully and ships excellently. A very profitable market grape, also a good wine grape. E. P. S. M. N. W.

✓ **Lomanto.** (*A20) Hybrid of Salado and Malaga. Vine vigorous, prolific, healthy, no rot or mildew; leaf medium, having little pubescence; cluster above medium, conical, properly compact; berry very persistent, medium to large, spherical, dark purple or black, skin thin, tough; pulp melting, excellent quality; juice claret red. Valuable for limy soils and hot climate. See note under Nitodal. B. E. P. M. N.

✓ **Cloeta.** (*A25) Parentage—America x R. W. Munson. Cluster large, berry



R. W. MUNSON. (See page 17.)

large, black, handsome; skin thin, handles well; pulp tender, juicy, sprightly, far better quality than Concord. Vine very vigorous and prolific. Uses, market, table, red wine. 10 to 14 feet, long pruning. Requires hot, dry weather to acquire high quality. E. S. M.

✓ **Ladano.** (†M4) Hybrid of Salado and Headlight. Vine vigorous, healthy, foliage similar to that of Headlight; cluster medium, compact; berry medium or above, dark, clear purplish-red, translucent, round; skin thin, tough; pulp tender, melting, rich, pure and sweet; seeds few. Fine for hot climate and limy soils. See note under Nitodal.

PERIOD III—JULY 10 to 20

✓ **Captivator.** (*A18) A cross of Herbert with Meladel, that is a combination of Rogers No. 44, his best black grape, Delaware, Goethe, and Lindley. The growth is fairly vigorous, foliage less attacked by mildew than Delaware. Very prolific. Cluster above medium, cylindrical. Berry large, round, of a beautiful bright translucent pinkish red, no handsomer grape grown. Skin thin, tough, without cracking. Pulp melting, of exceedingly delicious flavor, nothing superior. Seeds 1 to 2. Sugar of juice on Oechsle scale 85 to 95; acid per mill 6½. We think this grape will make a marvelous record over a very extensive region. Should prove hardy as far North as Central Illinois, Ohio, and in Massachusetts. In beauty and quality we are sure it is the finest grape yet produced in America. Ripens with Delaware. R. P. S. M. N. E.

✓ **Delaware.** (*A20) Full historic description, page 143, Foundations of American Grape Culture, and illustrated on page 145, same book. Cluster medium, berry medium, bright, red, juicy and of highest quality. Succeeds well in the South. Does not rot, but needs spraying to ward off Downy Mildew. E. S. M. N. B.

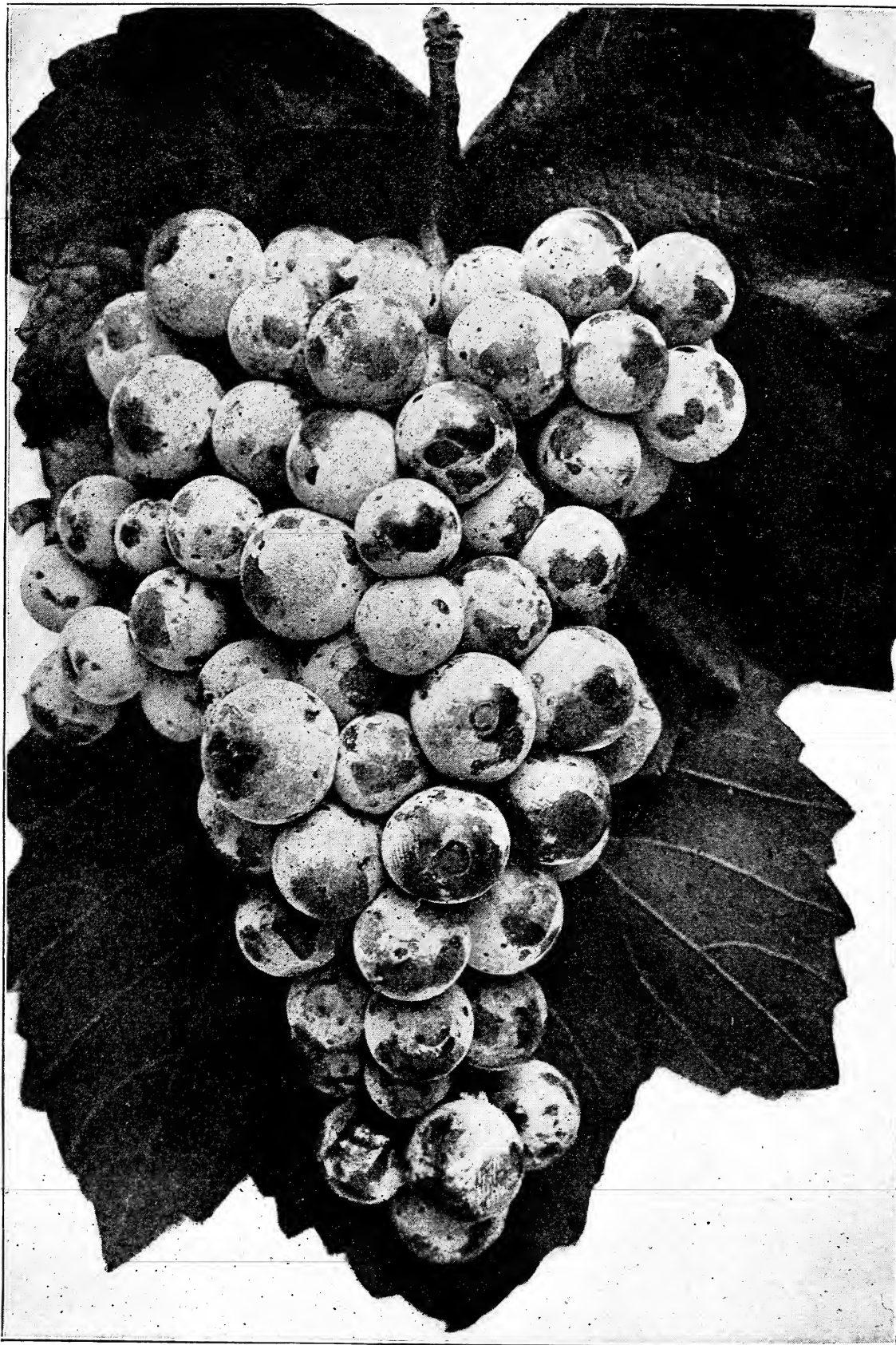
✓ **Delakins.** (*A20) A cross of Delago with Perkins, that is, a combination of Delaware, Goethe, and Perkins. It has the robustness of Perkins, the handsome cluster of the Delaware, but larger, and the size and shape of the berry of the Perkins, with the bright red of the Delaware. The berries are persistent, and in quality approaching the Delaware. It is very prolific and a splendid market and table grape. It should succeed over the same range of country as does the Delaware, and owing to its greater resistance to mildew and its fine market qualities, this variety will probably become popular. Ripens after Delaware. G. R. E. P. S. M. N. W.

✓ **Rommel.** (*A18) Hybrid of Elvira and Triumph. Growth medium, endures climate better than Concord. Requires short pruning. Prolific. Slightly attacked by mildew in wet, sultry seasons, but less so than Delaware. Clusters medium to small ovate or cylindrical, often shouldered, compact, peduncle short. Berries large, globular, persistent, greenish yellow when fully ripe, skin very thin and delicate, too tender for long shipment, carries well 50 to 100 miles; very profitable for a home market grape, as it is always in demand on account of its most agreeable and fine eating qualities. Pulp melting and perfectly delicious when well ripened, but acid when under-ripe. Fruit rarely or not at all attacked by rot. R. E. P. S. M.

✓ **Bell.** (*A15) A hybrid of Elvira with Delaware. Vine vigorous, healthy, free from mildew and leaf folder, very hardy, a good sure producer; cluster medium, cylindrical, often with a shoulder, fairly compact; berry medium, round, greenish yellow, rarely attacked with Black Rot; skin thin, sufficiently tough to prevent cracking under ordinary weather changes; pulp rather tender, juicy, very sweet and agreeably flavored; ripens just before Concord. E. P. S. M.

✓ **Wapanucka.** (*A22) (Rommel x Brilliant.) Growth medium to strong, equal with Concord, less attacked by mildew than Brilliant. Cluster medium to large, cylindrical, shouldered, properly compact; peduncle short to medium. Berries large, five-eighths to seven-eighths inch in diameter, globular, persistent, rich yellowish white, translucent; skin very thin and delicate. Ripe about with Delaware. Far superior to Niagara and Green Mountain. For nearby market and table grape there is no other variety superior, if equal to it. Very prolific, requires short pruning. R. E. P. S. M. N.

✓ **Nitodal.** (*A23) Salado hybridized with Malaga. Vine vigorous, healthy, cluster medium to large, conical, handsome; berry persistent, above medium, translucent, dark red; skin thin, never cracks; pulp melting, pure, fine, juice pale pink. Altogether very attractive and valuable; especially in limy soils and hot climate, and probably will succeed as far North as Missouri and Kentucky. This grape comes out of the species *Vitis Champini* of Southwest Texas which possesses endurance against climatic hardships in the South superior to any other species. This applies as well to Lomanto, Salamander, which are also bred out of this species by two generations of breeding. The parent, Salado, is a hybrid of one of the best



ELLEN SCOTT. See page 19.

Vitis Champini varieties with Brilliant.
G. R. B. E. P. S. M. N.

PERIOD IV—JULY 20 to AUGUST 1

✓ **Salamander.** (*M3) A combination of Salado, Delaware, and Lindley. Vine very vigorous and healthy, enduring drouth perfectly and 15 degrees below zero of cold. Prolific, of medium handsome, compact clusters of good, medium translucent red berries, having thin tough skin, melting pulp of quality about equaling Delaware, seeds small. G. R. B. E. P. S. M. N.

✓ **Lukfata.** (†A20) (V. Champini x Moore's Early.) Growth strong, Endures heat, drouth and cold remarkably well. Succeeds in black, limy soils. Not injured by mildew. Cluster medium, ovate, sometimes shouldered, compact; berries globular, large, persistent; does not crack; pulp about same as Moore's Early, more juicy and very sweet and agreeable. B.

✓ **Hernito.** (*A26) A seedling of Roger's No. 44, Herbert. Vine very vigorous, healthy, with foliage similar to that of Concord, endures the climate of Texas better than Concord, but more especially recommended for Northern States, where something much better than Concord is desired. Flowers perfect, cluster of medium size, compact; berry very large, black. Ripens before Concord and far superior to it; much more persistent to the cluster, never cracks, and hence a much better shipper. Very prolific. An improvement upon the Herbert, which was regarded as Roger's best black hybrid. R. E. P. S. M. N.

✓ **Niagara.** (*A17) Clusters large, compact; berry large, yellowish-green; skin tender; pulp juicy, better in quality than Concord, but not so good as Diamond. Needs spraying to ward off Black Rot. Better North than South; but succeeds better in the South than Concord. Needs short arm pruning in the South to prevent overbearing. G. E. P. S. M. N.

✓ **Ericson.** (*M10) Seedling of America crossed with R. W. Munson. Cluster medium to large, compact and attractive. Berry medium, black. Skin thin and tough. Seeds small. Fine for table and wine. The vine is hardy, healthy and vigorous, and resists attacks of insects well. Plant 8 to 10 feet apart. Medium length arms should be left in pruning, as described on page 226, Foundations of American Grape Culture. G. E. P. S. M.

✓ **R. W. Munson.** (†A23) (Big Berry Post Oak x Triumph.) Growth strong. Clusters medium to large, cylindrical,

often shouldered, peduncle medium. Berries when well grown, medium to large, globular, persistent; black without bloom; skin never cracks; pulp tender, juicy and of a very good quality, better than Concord or Beacon. Ripe just before Concord. Gives good satisfaction on market. Bears heavily on long pruning and when pollinated by other erect stamened varieties flowering at same time, its own pollen not being fully adequate, although its flowers are perfect. Concord and Brilliant good pollinators for it. G. E. P. S. M.

✓ **Beacon.** (*A22) (Big Berry Post-Oak x Concord.) Growth medium in South Texas, becoming stronger in North Texas, to very strong in Missouri. Very prolific, of large cylindrical clusters, often shouldered, moderately compact. Berries as large or larger than Concord, black, with rather heavy white bloom, hang to cluster about equally well with Concord, but not so well as Bailey; skin a little tougher than Concord, never cracks; pulp rather more tender than Concord, very juicy, sprightly and of a very similar flavor to Concord; rather more agreeable; seeds readily leave the pulp. G. E. P. S. M.

✓ **Concord.** (*A18) Cluster medium to large, berry large, black with bloom. A well-known grape. Better North than South. In the South it does not ripen evenly. S. M. N.

PERIOD V—AUGUST 1 to 10

✓ **Captain.** (†A20) Parentage—America crossed with R. W. Munson. See description of these. Clusters very large; long cylindrical, reaching 10 to 12 inches; berry large, black with white bloom; skin thin; ships well; pulp tender, freeing seeds easily, quality nearly best, much better than Concord. Exceedingly vigorous and prolific. Uses, market, table, red wine. Medium season. 10 to 12 feet, medium pruning. Use Concord or Rommel as pollinators. G. P. S. M.

✓ **Xlnta.** (†A22) (America x R. W. Munson.) Growth strong. Clusters large, cylindrical, shouldered, with medium peduncle, fairly compact, unless not well pollenized, then loose; flowers have reflex stamens and perfect flowering kinds should be planted near, such as Brilliant, Delaware or Gold Coin. Berries medium to large, globular, persistent, black, with little bloom; skin thin, never cracks; pulp meaty, tender and of a very agreeable, sprightly quality. Ripe with or later than Concord. Very prolific on medium to long pruning; an excellent market and wine grape. G. P. S. M. E.

PERIOD VI—AUGUST 10 to 20

✓ **Mericadel.** (*A26) A hybrid of America with Delaware, produced in 1898. Vine very vigorous and very productive; cluster large, berry medium, purple, very persistent to cluster; skin thin and tough; pulp tender and meaty, of very best quality; fine for table and market. Ripens late, just after Concord. Doing finely in Florida and Southeastern part of United States. Pronounced of the best quality by many who have taken part in our "grape-tasting parties." Plant 8 feet apart, medium arms in pruning. G. E. P. S. M. N.

✓ **Champanel.** (*A20) (V. Champini x Worden.) Growth rampant, exceedingly resistant to heat and drouth, growing well in limy black soils. Clusters large, conical, with long peduncle, rather open. Berries globular, large, black, with white bloom, persistent; skin thin, tough; pulp tender, juicy, very sprightly, acid unless well ripened, then quite agreeable; seeds rather large, easily leaving the pulp. Ripe about with Concord, which it resembles very much in cluster and berry. B.

✓ **Amethyst.** Parentage—Delago x Brilliant. Cluster medium; berry large, clear red, with delicate bloom; skin thin and tough; pulp tender, quality the best. Uses, market, table, white wine. Medium season, with Concord. Plant 8 feet apart, short arm. Requires spraying. G. E. P. S. M. N.

✓ **Dr. Collier.** (*A29) Ten Dollar Prize Post-Oak and Concord Hybrid. Vine vigorous. Cluster large, conical, not very compact; berries large, globular, clear handsome red, persistent, does not drop or crack; skin thin; flesh a little pulpy, very juicy. Should be thoroughly ripe, otherwise rather acid; good quality. In Oklahoma this grape is put at the head as a profitable market variety. E. P. S. M.

✓ **Extra.** (*M1) (Big Berry Post-Oak x Triumph.) Growth strong; cluster oblong to cylindrical, sometimes shouldered, moderately compact. Berries persistent, globular, medium to large, dark purple to black, with moderate bloom; skin thin, tough, never cracks; pulp tender, juicy, sprightly, agreeable, sweet; seeds easily parting from the pulp. G. E. P. S. M. R.

✓ **Ben Hur.** (*A28) Parentage a combination of Post-Oak grape with Norton and Herbemont. Vine very vigorous, very prolific, free from rot and mildew; cluster large; berry little under medium, black, persistent; pulp very tender, juicy, sprightly, sweet. We consider this one of the most valuable of American wine grapes. G. E. P. S. M. R.

✓ **America.** (†A23) (Seedling of Jaeger No. 70.) Growth very strong. Cluster conical, sufficiently compact. Berries very persistent, medium size, globular, black, with little bloom, and scatteringly dotted jet black, with white speck in center of dots; skin thin and tender, but does not crack; pulp melting, juicy, easily freeing the slender seeds, when fully ripe very rich in sugar; also rich in agreeable acid; possesses a very distinct, peculiar flavor, much liked by some; not "foxy," making a good combination market and wine grape. A very good port wine has been made from it without "fortifying." Very prolific with long arm pruning and when pollenized by other varieties, as it does not thoroughly pollenize itself. Beacon is a good mate. E. P. S. M.

✓ **Bailey.** (*A26) (Big Berry Post-Oak x Triumph.) Growth strong. Clusters large to very large, cylindrical or often branching, generally compact. Berries persistent, large, black, with little bloom; skin thin and tough, never cracking; pulp meaty, but not tough, juicy, sprightly, of pure very good quality, considerably above Concord; seeds readily parting from pulp. A valuable market grape, easily superseding Concord, especially in South-Central and Southwest Texas, where it has done remarkably well. G. R. P. M. S.

✓ **Blondin.** (*A30) Combination of Ten-Dollar-Prize-Post-Oak, Norton Virginia, and Herbemont. Cluster large, compact, shouldered; berry medium, white translucent; skin very thin and tough; pulp very tender, juicy, sprightly, quality excellent, nearly best. Very vigorous, prolific. Late, with Triumph and Catawba in season. Very valuable as a late market and white wine grape. E. P. S. M.

✓ **Valhallah.** (*A20) A hybrid of Elvicaud and Brilliant; that is, one-fourth Mustang, one-fourth Elvira, one-fourth Lindley, and one-fourth Delaware. A very vigorous drouth-enduring prolific vine, well suited for black lands and will endure Missouri winters. Cluster medium; berry large, bright clear red; thin, tough skin; tender, juicy pulp of quality nearly equaling Brilliant. Hangs on perfectly; never cracks or rots. B.

✓ **Wine King.** (*A26) A hybrid of Winona and America. Winona is a pure seedling of Norton Virginia, and quite an improvement on that celebrated variety, hence Wine King is a thoroughly bred pure America blood of the finest wine properties and large enough in berry and cluster to make a good market grape. It has been sold in the market

1913-14

and gives excellent satisfaction. Produced in 1898. Cluster large, berry medium, black, very persistent. Skin thin, never cracks, pulp tender and juicy, rich and sprightly, intensely red juice. Seeds small. Very vigorous, prolific; free from all disease. G. E. P. S. M. R.

Manson. (*A26) An exceedingly valuable white grape. A hybrid of R. W. Munson with Gold Coin, produced in 1899. Vigorous and productive; clusters large, berry above medium, of yellow color; skin thin and tough; pulp tender, quality excellent. Ripens late, with Triumph. E. P. S. M.

PERIOD VII—AUGUST 20 TO 30

Catawba. (*A18) Cluster medium, conical; berries above medium, clear dark red, globose; skin thin, tough; pulp rather tender, juicy, sprightly, with a slight Muscat flavor, not foxy. Excellent for table and wine. Does well North and fairly well South. E. P. S. M.

Ellen Scott. (*M3) Armlong hybridized with Herbemont. Vine beautiful, healthy, vigorous, prolific. Suitable to the South as far North as St. Louis and Cincinnati. Cluster large to very large, conical. Berry large, translucent, violet covered with a delicate bloom. Skin thin and tough. Pulp tender, very juicy and sprightly, of pure high quality, reminding one of the best foreign grapes. A very handsome table and market grape. Ripens after Catawba. This grape ought to be especially valuable in West and Southwest Texas, where the European varieties will grow, and we believe will become a valuable commercial variety for those regions, as well as regions farther North and East. It has splendid shipping qualities. We anticipate for this grape a great future, and believe we have produced no grape of greater value. G. R. E. P. S. M.

Armalaga. (*M2) A hybrid of Armlong (which is a hybrid of native Post-Oak grape with Black Eagle) and Malaga. The vine is vigorous and healthy. Flower perfect. Cluster large and compact. Berry large, yellowish-green, translucent, persistent to cluster. The skin is thin, tough, yet pleasant to taste, without astringency. It endures shipping as well as Tokay. In quality equal to the best foreign grapes. This promises to be very valuable in all of the drier portions of the Southwest, as it is much hardier than pure Vinifera kinds. Its fruit would be taken by anyone not acquainted with native blood as a pure foreign grape and will sell equally well with such, while the vine is immensely superior to any of the foreign. Its

quality is much richer than Malaga. R. E. P. S. M.

Edna. (†M3) Hybrid of Armlong with Malaga, and similar in every way to Armalaga, although the vine seems to be more vigorous. Clusters as large and as handsome as Armalaga. G. R. E. P. S. M.

Augustina. Combination of Delaware, Goethe, Brilliant. Cluster large; berry very large, translucent carmine red, very handsome; skin thin and tough; pulp meaty, tender and juicy, quality the best, with very delicious characteristic flavor. Good grower, very prolific. Table, market, white wine. Season very late, after Catawba. Plant 8 feet, short arm pruning. Spray. R. P. S.

Carman. (*A26) (Post-Oak No. 1 x Triumph.) Growth vigorous; foliage never attacked by leaf folder or mildew; very prolific. Cluster large to very large, have reached two pounds in rare instances, shouldered or branched, conical, very compact. Berries persistent, medium, globular, black with thin bloom; skin thin and tough, never cracking; pulp meaty, firm, yet tender when fully ripe, of pure, rich quality, much superior to Concord; seeds easily leaving the pulp. G. E. P. M.

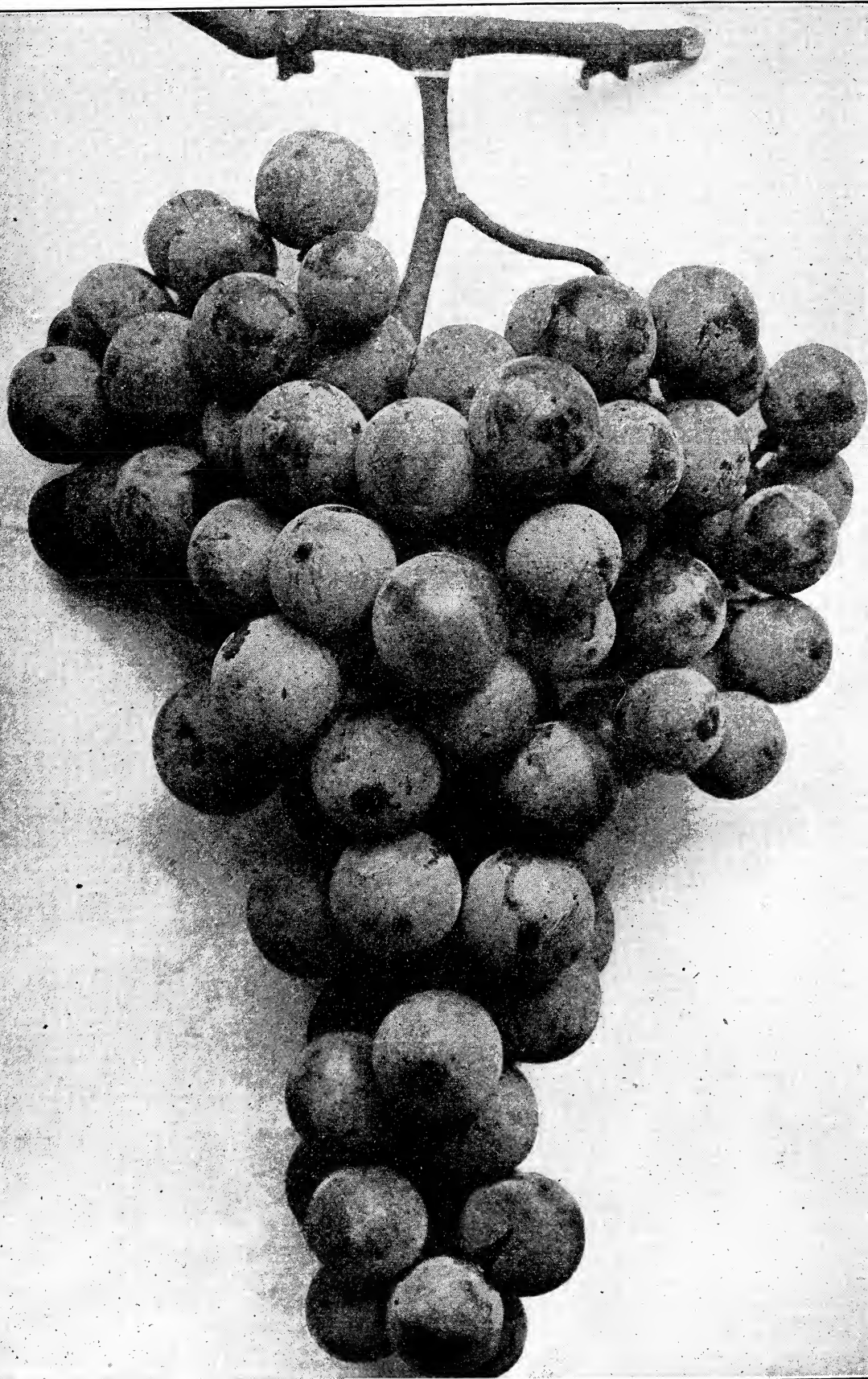
Ronaldo. (*M4) Armlong - Malaga hybrid. Of the same general character as Armalaga, only the vine more vigorous and larger clusters. White. G. R. E. P. S. M.

Columbian. (*M10) Seedling of Isabella, and first introduced as Union Village. Cluster small; berries immensely large, purple. Quality fair. Ripens unevenly. Its extreme large berries make it a novelty for those who wish large berries to be the prime object. Fine for jelly. E. P. S. M.

Gold Coin. (*A23) (Norton x Martha.) Growth medium. Cluster medium or above, ovate shouldered, proper degree of compactness. Always sets a crop of well-filled clusters; peduncle medium to long. Berries large, globular, yellowish when fully ripe, persistent; skin thin, tough, never cracks, and rarely attacked by rot; pulp about same consistency as Concord, very juicy and exceedingly sweet; retains a little of the Martha flavor; liked by most persons. Very handsome in the basket and markets excellently; has always been very profitable. E. M.

PERIOD VIII—SEPTEMBER

Grapes in this period, while ripening here the last week of August, and first week in September, will hang on for several weeks without deteriorating, as the nights are cool and birds have left.



✓ **Jacquez.** (Le Noir, Black Spanish.) (*M2) Very prolific. Cluster rather open, but long and large. Berries small, very juicy and sprightly. Fine for red wine. Does well in Southwest Texas in semi-arid regions. In moister regions requires spraying to keep off mildew and black rot, to which it is subject. R. G. P.

✓ **Herbemont.** (*M4) Vine very vigorous, healthy and long lived in the South. Clusters large; berries small to medium, brownish red or translucent purple, not coloring much when in dense shade of foliage. Juicy and sprightly. Fine white or amber wine. Much subject to black rot, which will have to be kept in check by spraying. Well adapted for the South and only as far North as Kansas, as winters with 15 degrees below zero and colder will damage it. R. G. P.

✓ **Longfellow.** (*A30) Hybrid of Arm-long with Griesa, the latter a very fine Italian grape. Vine fair grower, very prolific, healthy. Clusters extremely large, often 10 to 12 inches in length. Berry large, oval, persistent, black, of high quality. One of the most magnificent show and market grapes, adapted to all varieties of soil and for regions as far North as Missouri. Will compete with foreign grapes in market. Plant 8 feet, with short arm pruning, as described on page 226. Foundations of American Grape Culture. Will require spraying in damp regions. G. R. P. E. S. M.

✓ **Muench.** (*M2) A hybrid of Neosho (a Missouri Post-Oak grape found by

H. Jaeger) and Herbemont. Vine very vigorous and free from all disease; cluster large to very large; berries above medium, purplish black; pulp very tender and meaty, of fine quality. Sells readily in the market, also fine for table. G. E. P. M.

✓ **Fern Munson.** (†M4) (Post Oak No. 1 x Catawba.) Growth very strong. Cluster medium to large with long peduncles. Berries globular, medium to large, very persistent; very dark purplish red to nearly black; skin thin, tough; pulp firm, but not tough; very juicy, sprightly, with very agreeable Catawba flavor when fully ripe; seeds leave the pulp readily. Ripens very late in August or early in September, and hangs on until frost if desired, becoming excellent in quality and giving full satisfaction in market. Very profitable, as it ripens when all old varieties are gone. Free from black rot. Has endured 27 degrees below zero, and has borne well the following season. It endures drouth excellently. G. R. E. P. S. M.

✓ **Last Rose.** (†M5) A hybrid of Arm-long and Jefferson. Vine vigorous, healthy and prolific. Cluster very large, compact, long peduncle, conical, with heavy shoulder. Berry medium to large, dark bright red, round. Pulp tender, of very good quality. Ripening very late with or later than the Fern Munson, probably the latest grape in the list. Adapted to the same regions as the Ellen Scott. A very handsome market grape. G. R. E. P. M.

European or Vinifera Grapes

These succeed in the semi-arid regions of the South, Southwest and West Texas with irrigation. Owing to their poor resistance to phylloxera, mildew and rot they are not successful in moister regions of Central and East Texas. Some of the varieties do well for amateur purposes in North Texas when given winter protection. With thorough spraying of Bordeaux Mixture to hold mildew in check, they can be made to succeed where they otherwise would not.

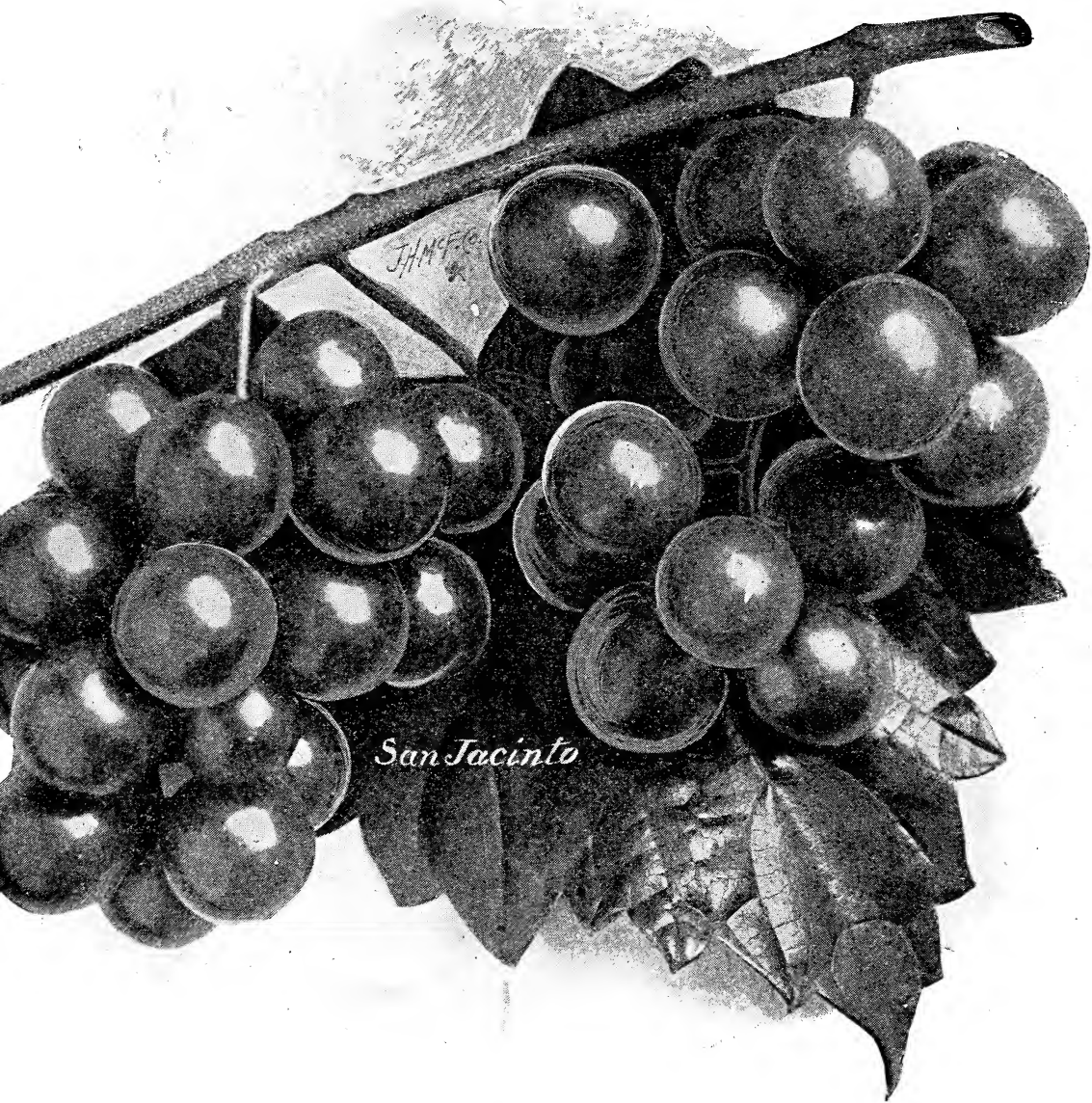
We have two grades of vines in most of the varieties listed. The regular grade with branches 12 to 20 inches long will be noted in the price list as **Regular Grade**. The other grade is a special one, where there will be one strong cane four feet long trained ready to go on the trellis; this will be designated as **Special Grade**. See Price List, page 29.

✓ **Pearl of Casaba.** This is a new Hungarian variety that is creating great interest among the grape growers of that country, as it is by far the earliest fine market grape known. We fruited it several seasons and it ripened some ten days earlier than the Headlight. It is one of the freest from mildew and rot of foreign grapes. The cluster large, conical with long peduncle. Berry above medium, white, very tender, juicy, of delicious Muscat flavor.

✓ **Violet Chasselas.** Vigorous; cluster very large; berry large ovate, violet, beautiful, superb quality. Table, market, wine.

✓ **Zinfandel.** Dark, purple, medium size berry, large cluster, fine quality, excellent for red wine.

✓ **Golden Hamburg.** Bunches large, loose, broadly shouldered; berry large, oval, somewhat flat at the end; skin greenish-yellow; flesh soft, melting, juicy.



SAN JACINTO. See Page 23
(Also a good representation of the La Salle)

Muscat of Alexandria. Bunches long and loose shouldered; berry oval, sometimes round; yellowish-green; skin thick; flesh with a decided Muscat flavor. This is the variety so extensively planted for raisins.

Flame Tokay. Very vigorous, prolific; large cluster and very large berry; bright pink; very meaty and firm. Fine quality when fully ripe. A famous commercial variety for long shipments.

Black Hamburg. This is the famous national English grape. Bunches very large, heavily shouldered; berries large, round, skin thick; coal black when fully ripe; fresh, sweet and juicy; one of the best table and market grapes. An immense bearer.

Pense. (Malaga.) (Spanish.) Vigorous, and healthy; cluster very large; berry large, meaty, ovate, white; table, market, raisin.

Muscat Rose. We have fruited this variety two very wet seasons and have found it to be the freest from mildew and rot of any of this class yet tried, of which we have tested about sixty varieties. It is very vigorous, prolific, has

large conical clusters of large oval violet berries, meaty, juicy, sprightly, of the highest, most delightful Muscat flavor. Ripening soon after the Concord.

Black Cornichon. Bunches long and loose; berries long, olive shaped, tapering at both ends; skin thick and dark; covered with bloom; flesh firm, with pleasant flavor; a very desirable variety for shipping and marketing; ripens late.

Emperor. Vine a strong grower and heavy bearer; bunches very large, long and loose-shouldered; berry large, oblong, deep rose colored, covered with light bloom, firm, skin thick. One of the most profitable late varieties to plant for market; its firmness, good keeping qualities and rich color cause it to be in great demand in the eastern markets every year. Withstands rain better than any other variety.

Grape of Escol. Introduced into the United States from Palestine by General Lew Wallace. Immensely large cluster. Berries very large, ovoid, purplish black, very firm and meaty, hence a fine shipper. Does not crack. Very handsome and showy grape.

Southern Muscadines and Hybrids

Succeed in deep rich soil throughout the South. Require much high trellis room. Plants 16 to 20 feet apart in rows. Require little or no pruning. Fruiting varieties, to render them fruitful, need male vine growing near to pollinate them.

Thomas. Very large, black, two to five berries to cluster, not persistent. Best of the pure black muscadines. Good wine.

Scuppernong. Large bronze yellow, juicy, good wine. Four to six berries to cluster.

The following are hybrids of the Scuppernong made by us. The La Salle and San Jacinto being of the first generation and the others of the second generation from the Scuppernong.

La Salle. Hybrid of Muscadine and Post Oak. Large, black berry with 6 to 15 to cluster and more persistent than Thomas. Skin thin, pulp tender and better quality than Scuppernong. Earliest to ripen of this class.

Sanmonta. Parentage San Jacinto x Herbemont; cluster as large or larger than Sanmelaska, sometimes having 30 or 40 berries, which are black and a size larger than Herbemont; skin thin and pulp very juicy; melting, of fine sprightly quality; seeds small; vine exceedingly prolific and vigorous; promises to be a great wine grape of this class; when

San Alba and San Rubra. We will have no vines of these two varieties to offer this season.

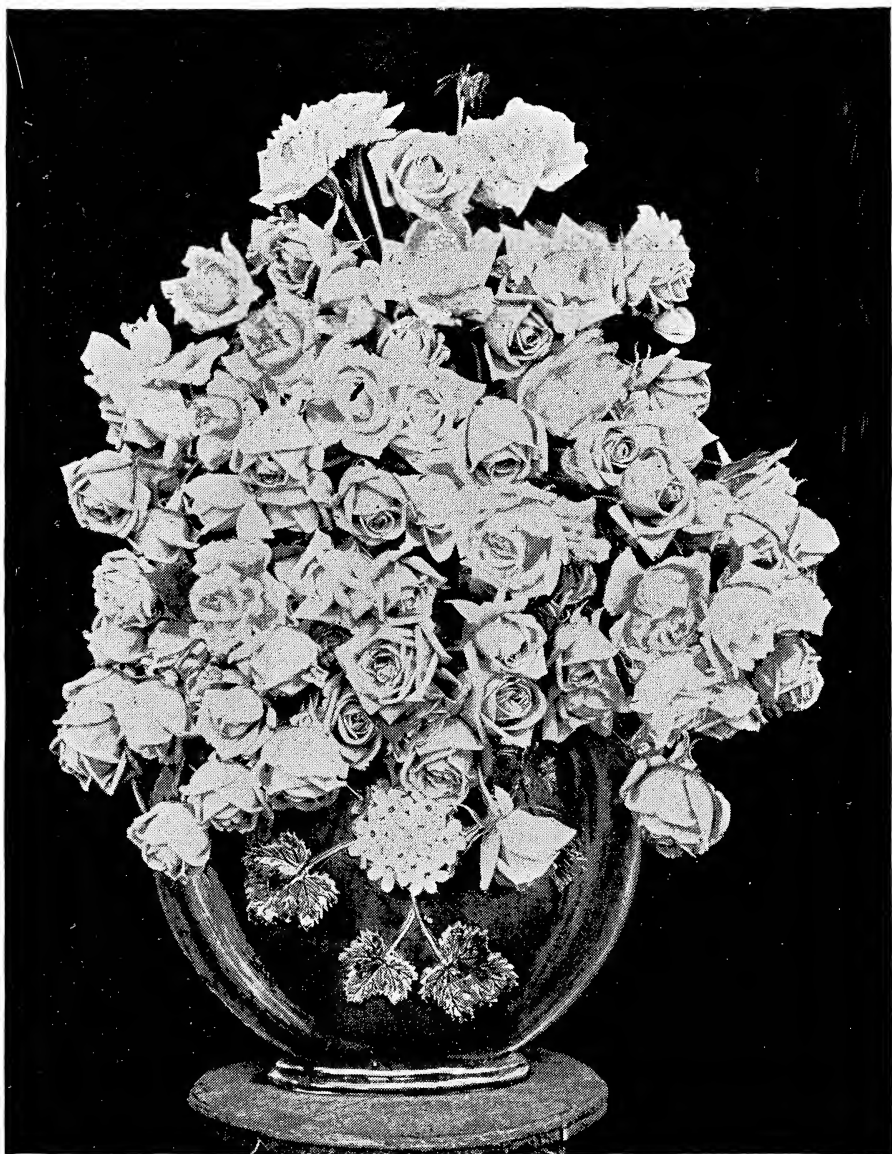
Scuppernong is 65 sweetness, San Jacinto is 76 and Sanmonta 77.

Labama. Hybrid of San Jacinto and Brilliant (?). Large black berries similar to La Salle, but of better quality and with larger clusters. Vine exceedingly vigorous and prolific.

San Jacinto. Berry above medium. Cluster a little more filled than La Salle, about three times the size of Scuppernong. Quality a little better than La Salle and follows it in ripening. Very prolific. Same blood as La Salle.

Sanmelaska. Same parentage as Sanalba, with somewhat larger berries than Sanrubra, black; cluster as large or larger than San Jacinto; of excellent quality; 81 degrees sugar when Scuppernong was 65. Very vigorous and prolific. Best black of this class.

Male Muscadine. To pollinate the bearing varieties to render them fruitful. One male for each six or less bearing vines will answer if all are in same plat. At least one male should be in each plat, and one male for each six bearing vines when there are many bearing vines in the row.



ROSES—DIRECTIONS FOR PLANTING, PRUNING AND FERTILIZING

Any good garden soil is suitable, but should be well fertilized with decomposed stable manure. Keep the soil free from weeds and stir frequently during the summer. Mulching in fall with stable manure is beneficial. A small amount of bone meal or good fertilizer applied in summer is advisable.

WHEN PLANTING, cut off all but two or three of the strongest branches; cut these back to 3 inches. Plants thus cut back will transplant better and produce finer flowers.

PRUNING. After the first killing frost, most of the varieties should have two-thirds of the past year's growth cut off. As a general rule, the more vigorous the variety the less it should be pruned. Remove all decayed wood. Climbing Roses should have only their side branches shortened in; do not disturb the main stem.

WE FREQUENTLY receive complaints from our patrons who order late in the spring; they state the flowers produced on their roses are very inferior and do not come up to description. We would state that perfect flowers cannot be expected from plants set out late in February or March, and which produce blooms before they are well established. But if these plants are allowed to grow until the following fall, and if they receive the proper treatment, there will be no cause for complaint.

Roses

Read Henderson's Practical Floriculture. Price, \$1.50.

STRONG, OPEN-GROUND, TWO-YEAR PLANTS

The following list includes the most superb varieties, both old and new. The plants are thrifty and vigorous, growing in open ground.

All these have been in bloom throughout the season, and we know them to be strictly pure and true to name and description. Our roses always give the best of satisfaction.

EVERBLOOMING WHITE AND BLUSH

Frau Karl Druschki. Pure white Jacqueminot style flower. Hybrid perpetual.

The Bride. Pure white, with tinge of pink when planted in the garden; large, full and most perfect form.

Clothilde Soupert. Vigorous, profuse bloomer, with medium, very full, white flowers, with pink center.

The Queen. Pure snow-white; sweet and fragrant; petals are thick; makes fine buds on long stems; good grower.

Antoine Revoire. Very handsome Camelia form. Outer petals almost white, gradually becoming flesh pink toward center; robust, healthy.

Bessie Brown. Exceedingly handsome, petals recurring most gracefully, very delicate shade of shell pink or flesh.

Kaiserin Augusta Victoria. Pure white, fragrant; fine buds and flowers on long stems; profuse; strong grower.

White Cochet. Identical in shape and habit with that splendid pink rose, Maman Cochet, except the color is white, changing to blush.

Carnot. Flesh-tinted white. Long beautiful bud, cupped, wax-like.

BUFF AND YELLOW

Etoile de Lyon. Rich, yellow, full, fragrant, pretty; profuse all summer.

Blumenschmidt. Pure citron-yellow; outer petals edged tender rose. A sport from Mademoiselle Franceska Kruger, which it resembles in form.

Helen Good. Delicate yellow, suffused with pink.

Marchael Neil. Large, deep yellow, climbing habit. Needs winter protection.

Marie Van Houtte. Canary-yellow, deeper center, the border of the petals tipped with bright rose; large, full and fine form, a free and continuous bloomer.

PINK

Pernet Triumph. Rich, dark, bright pink; large, beautiful bud on strong stem.

Catherine Mermet. Vigorous, large, full; bright flesh color; very sweet.

Caroline Testout. Light pink of same shade as Hermosa.

La France. Upright, very large, full; delicate pink, sweet, profuse.

Duchess of Albany. Habit of plant, shape and size of flower similar to that

of La France, but more profuse and of deeper pink.

Franceska Kruger. Fine rich pink, creamy towards center; slightly penciled with deeper pink on outer petals. Healthy plant, great bloomer.

Maman Cochet. Rose or pink, shaded with salmon; profuse, fine bud and flower; strong grower; a very superior rose; one of the best for outdoor planting in Texas, also excellent for cut flowers.

Aurora. One of the grandest of all Hybrid Tea Roses. Color clear, bright pink, full and double to the center.

Bridesmaid. A grand pink Rose for all purposes, not only a good garden Rose but forces well. Splendid buds.

Beauty of Stapleford. Rosy-crimson; makes a fine shapely bud and flower.

Paul Neyron. Upright, vigorous plant, clear pink, large.

W. R. Smith. Light, clear shell-pink.

SCARLET AND CRIMSON

Meteor. Large, clear, rich, dark crimson; profuse; strong grower; full.

Etoile de France. Clear crimson scarlet, superb every way.

Madame Masson. Strong and hardy; flowers large and profuse, very double; flowers dark crimson.

Rhea Reid. Flower large and double, very free blooming and exquisitely fragrant, rich dark velvety-red.

General McArthur. Bright crimson, shade lighter than Etoile de France.

HARDY CLIMBERS

Crimson Rambler. One of the finest climbers; magnificent trusses of deep crimson flowers; makes a fine show as a climber and profuse bloomer.

Climbing Paul Neyron. Large flower, pink; constant. A superb variety, a fine companion for the next variety.

Climbing Meteor. A deep, double-crimson climber. Constant in flower.

Climbing Augusta Victoria. Most beautiful white bud, and flower equaling in beauty the bush Kaiserin Augusta Victoria; constant.

Climbing Testout. Very strong. Light pink.

Red Dorothy Perkins. Profuse red, strong vine.

Shade and Ornamental Trees

With the description of each we mention the sizes we have in stock. The sizes are indicated by letter and same defined in the Price List under Shade Trees on page 30.

Elm, American White. (*Ulmus Americana*)—Our tall, wide spreading, native broad-leaved, white, or American Elm, the new growth long and switchy, sometimes pendant at the ends, often, however, forming the vast type, limbs gracefully upward. Attains one hundred feet or more. Indispensable in all southern plantings. Sizes, A, B, C, D.

Hackberry. (*Celtis Occidentalis*)—Perhaps the healthiest, most vigorous, most durable of our native trees, in all soils and conditions. Invaluable as street trees or as single specimens on the lawn and in grouping. We have found that hackberries, four to seven years old transplant better than younger trees, which is very uncommon, the opposite of most trees. Plant with the view of their standing and growing for generations. Sizes, A, B, C, D, E, F.

Locust, Black. (*Robinia Pseudacacia*)—A well known species, largely planted throughout our country as shade and street trees, wind breaks and timber belts. Very popular in the treeless prairies, especially west of the 100th meridian. Of rapid growth, reproducing itself quickly after cutting, and the timber is very durable. Sizes, A, B, C, D, E, F.

Maple, Silver or Soft. (*Acer Dasycarpum*)—Grows best in moist, rich soil but succeeds almost anywhere. A rapid,

chaste, beautiful tree, suited to a wide range of purposes. Sizes, A, B, C, D.

Male Russian Mulberry. Non-fruiting. An excellent round-headed shade tree, well adapted for street planting. Sizes, A, B.

Red Bud or Judas Tree. (*Cercis Canadensis*)—A very ornamental native tree, producing a profusion of delicate, reddish purple flowers early in spring before the leaves appear. Sizes, C, D, F, G, H.

Poplar, Carolina. (*P. Caroliniensis*)—Considered as distinct from the Cottonwood, it differs in its strict, straight appearance, making a more upright, uniform head. A very rapid growing, effective tree, much planted throughout our country. Free from cottony blooms. Sizes, A, B, C, D, E, F, G.

Sycamore. A very symmetrical, quick growing. Easy to transplant. Older trees have white underbark. Large leaves. Adapted equally well to black and sandy soils. Sizes, A, B, C, D, E, F, G, H, J.

Weeping Mulberry. Those we have are grown from cuttings hence on their own roots, and not grafted on a straight body. As the tree grows, the under limbs can be cut off and the tree will make its own body of a very pretty effect. The size we have are 2 to 3 feet at 25 cents each.

Deciduous Flowering Shrubs

Largely in demand for massing or grouping effects in landscapes, parks or other ornamental planting, and also as single specimens. Much depends upon the skill of the artist or planter in the proper selection, grouping or massing of Flowering Shrubs, to bring out the most pleasing and artistic effects. It is scarcely practicable to define set rules. Good soil and good culture will be amply repaid.

Althea, or Rose of Sharon. (*Hybiscus Syriacus*)—Altheas are among our most valuable flowering shrubs, blooming for a long time, and deserve to be in every collection. We have an assortment of distinct kinds, giving many shades of color and types of form and habit, both single and double, in colors including white, pink, purple, red, violet, striped, etc.

Crape Myrtle. (*Lagerstroemia*)—This is a southern plant, much esteemed, very effective both as a single specimen or a small tree, or in groups, as a large shrub. Blooms throughout the entire summer, producing great masses of beautifully fringed flowers in immense panicles. A

single tree on the lawn is most effective, or a mass of them produces a most magnificent background. The crimson is a beautiful, bright red. The light pink is very distinct.

Deutzia Crenata. Upright woody shrub that blooms early in spring, profuse and fragrant. Light pink.

Deutzia Watsonii. (Pride of Rochester)—Double pure white.

Lilac, Persian. (*S. Persica*)—An improved Lilac, flowers in early spring, light purple, very fragrant.

Philadelphus Coronarius, or Mock Orange. (Improperly called Syringa, Sweet Syringa, etc.)—A rather upright shrub of good appearance, bearing in

May and June a profusion of single white flowers one and one-half inches wide, in rather dense racemes, very fragrant and effective.

Bush Honeysuckle. Upright with bending canes. Blooms in February with sweet white flowers.

POMEGRANATES

Double Salmon. Large waxy-like beautiful flower. Half hardy in North Texas. Hardy Waco, Tyler, and South.

SPIREAS

Argentea. Upright, medium grower, with large spikes of white flowerlets, profuse. Pretty and effective in bouquets. Easy to grow. Blooms in summer.

Billardii. Vigorous grower, upright, rose-pink colored spikes similar in shape to *Argentea*, to which it would make a good mate.

Prunifolia. Snow white double flower-

lets, covering all of the branches, very early.

Reevesii. (Bridal Wreath.) Large, round clusters of pure white double flowers that nearly cover the plant. Blooms early in spring. More desirable than *Snowball*.

Van Houte. Pure snow white, single flower, with dark eye in center, borne in globose clusters similar to *Reevesii* in this respect, very graceful.

Pyrus Japonica. (Scarlet or Japan Quince, Devil's Fire.) A gorgeous sight of fiery red flowers very early in spring; in full bloom before leaves come out. Fine for single specimen, screen or hedge.

California Privet. One of the most popular; used for screening or hedging purposes around yards and lawns; also splendid for single specimens. Nearly evergreen.

Climbing Vines

These constitute Nature's own living drapery, indispensable to "set off" the various objects of a well appointed place. They are very graceful and effective.

Climbing Roses. See list under Roses.

Honeysuckle, Chinese Evergreen. Foliage light green, dense, rapid grower; flowers white and buff.

Honeysuckle, Fuschia Leaved. Of the coral type, vine upright, flowers red on outside of corolla with yellow inside, perpetual bloomer, very fragrant, generally evergreen, one of the best climbers. Foliage dark green.

Honeysuckle, Halls. Flowers very fragrant, white in opening, becoming buff. Very profuse, perpetual from early spring until fall; evergreen.

Honeysuckle, Yellow Trumpet. With yellow flowers.

Trumpet Creeper. A stout, woody, handsome vine, with compound leaves and perpetual, waxy, large, tubular orange flowers in clusters; fine to ornament outhouses, tree bodies, etc., as it climbs by aerial roots.

Wistaria. American purple. Hardy; fine for arbors, porch screens, etc. Profuse in early spring.

Virginia Creeper. (Ampelopsis quinquefolia.) Five-lobed or fingered leaf; bright green in summer, turning scarlet in fall; completely covers dead trees, brick walls, fences. Not poisonous.

Coniferous Evergreens

Much care should be exercised in transplanting Evergreens not to allow the roots to be exposed to sun or air. Our rule is to coat the roots, as soon as dug, with a puddle of earth or mud, and pack with moss.

In most of the Evergreens this season we have only the smaller sizes. The size in stock is mentioned with each variety.

Arbor Vitae Compacta. (Biota Or. Compacta)—A compact form of the Chinese, of beautiful compact habit and deep green color. 6 to 12 inch only.

Arbor Vitae, Golden. (Biota Or. Aurea)—This is a very compact and popular form, retaining its beautiful habit naturally, and has a somewhat golden hue superseding the bright green. Very suitable for small places, such as front yards, cemeteries, etc. 6 to 12 inch only.

Arbor Vitae, Pyramidal. (Biota Or. Pyramidalis)—A very upright type of Golden Arbor Vitae, its bright green suffused with a slight golden tint. 6 to 12 inch sizes only.

Cedrus Deodora. A rapid growing, graceful, successful evergreen for the South, light bluish green. 8 to 10 in., 1 to 2 ft., 2 to 3 ft., 3 to 4 ft.

Cedrus Atlantica. Slow growing, hardy, handsome, bluish green with

shorter needles than the Deodora. 1 to 2 ft.

Cryptomeria Japonica. (Japanese Cedar.) Same habit of the expensive Norfolk Pine (*Araucaria*), but is perfectly hardy outdoors. Light lively green. 1 to 2 ft., 2 to 3 ft., 3 to 4 ft.

Trailing Juniper. Dark green variety; very hardy in the south. Grows low, trailing on the ground. 1 to 2 ft.

Pinus Ponderosa. The long needle graceful pine of Colorado. 6 to 12 inch size only in stock.

NOTE:—We have some very large sizes of *Arborvitae* and Red Cedar from 5 to 8 feet tall that would do for nearby planting at \$3 to \$5 per specimen.

Evergreens will be much benefited in transplanting if protected from wind and sun until they begin to take hold of their new soil. This can be done by placing barrels or boxes over them. The spring winds are specially very hard on transplanted Evergreens. Little care and good judgment will insure their success, while neglect will mean failure.

Broad Leaved Evergreens

These comprise such Evergreens as *Magnolia*, *Cape Jasmine*, *Laurel*, etc. The same precautions must be observed in transplanting as with Conifers, and it is far safer and better, in addition to these precautions, to have the leaves removed, from most kinds, when taken up, and let them put out a new set of leaves. After being carefully planted and properly watered, it is well to mulch with coarse material to prevent rapid drying out.

Cape Jessamine. A very handsome shrub of glossy evergreen leaves. Blooms in May and sometimes throughout the summer and fall, exquisitely beautiful, fragrant, camelia-like, pearly double white flowers. Hardy from Red River southward.

Magnolia Grandiflora. The grandest of all evergreens and flowering trees. Has large, glossy, bright green leaves. Succeeds throughout Texas and Oklahoma, as well as in other southern states. By clipping off all but a few of the tip leaves when taken up, and treated as in our handling, they are readily transplanted. We do not clip the leaves off

Pinus Austriaca. The Austrian Pine. Very hardy in the South. Of slower growth than White or Yellow Pine. 6 to 12 inch size in stock only.

Pinus Sylvestris. The Scotch Pine. Dwarfish, compact habit. 6 to 12 inch size only in stock.

Picea Excelsa. The Norway Spruce. About the only Spruce that will do in the South. 6 to 12 inch size only.

Red Cedar (*Juniper Virginia*). The native evergreen of Texas and adjoining states. 1 to 2 ft. size.

unless so instructed. 1 to 5 ft. sizes in stock.

Euonymus Japonica. An evergreen similar in appearance to Box but with larger, more glossy leaves and more rapid grower than the Box. Fine for single specimens. Also makes pretty hedging plants for walks and borders, as it does not grow near so rapidly as the privets. Sizes in stock: 6 to 12 inch; 1 to 2 ft.

Holly. We only have in stock this season some very large specimen trees that would do for nearby places. Sizes, 4 to 8 ft.; heavy from \$2 to \$5 each.

Christmas Trees

We have a lot of overgrown *Arbor Vitae*, Red Cedar, and Holly from 5 to 8 feet high, from 3 to 7 feet through, which, unless much care is taken, are too large for transplanting. These can be cut off at or just under the ground and make fine Holiday trees or the greens used for decorating. Price, 50 cents to \$1 each at nursery. Packing and delivery extra.

Perennials

Iris. A fine bedding perennial, blooming early in spring, with double flag-like flowers, in various shades of blue and purple. We have an assortment of 10 of the best German varieties.

Zebra Grass. The prettiest and most

enduring of all grasses. Cross striped with thin lines of white. Makes soft plumes in fall.

Pampas Grass. A strong growing grass, producing fine white plumes for winter decorating.

PRICE LIST

As noted, there are two sets of prices; the "DENISON SCALE" and the "PREPAID SCALE."

The "DENISON SCALE" is for all size orders and applies to all points in the world. Under this scale customer pays express or freight charges. Packing is free on orders of \$2 or more; on less size orders, add 25 cents to cover cost of packing.

The "PREPAID SCALE" is for orders amounting to \$5 or more at a shipment and only to points in Texas, Oklahoma, Kansas, Arkansas, Louisiana and Missouri. Under this scale we pay express or freight to such points. Packing is free.

Customer's Option. Customers living in the above mentioned States and making orders of \$5 or more at a time have the choice of ordering from either scale of prices according as to whether he wishes to pay transportation or us. Customers living in other States than those mentioned, and all customers making orders of less than \$5 should remit according to the "DENISON" scale.

Prices as to Quantity. As noted, prices are given for "each," "dozen" and "100." When 1 to 5 of a variety is ordered, remit according to the each price. When 6 to 39 of a variety is ordered, remit according to the "dozen" price. When 40 to 400 of a variety is ordered, remit according to the "100" price. When 400 or more of a variety is wanted, remit according to the "thousand" price, which is 10% less than the "100" rate multiplied by ten. (Example: Apple trees quoted at \$10 per 100 would be \$90 per 1,000.)

Varieties and Sizes.	DENISON SCALE			PREPAID SCALE		
	Each	Dozen	100	Each	Dozen	100
Apples, Page 4						
2 to 3 feet	\$0.10	\$1.00	\$ 7.00	\$0.11	\$1.15	\$ 8.00
3 to 4 feet .....	.15	1.50	10.00	.18	1.85	12.00
4 to 5 feet .....	.20	2.00	12.00	.25	2.65	16.00
5 to 6 feet .....	.30	3.00	20.00	.40	4.00	27.50
Apricots, Page 7						
2 to 3 feet .....	.15	1.50	10.00	.17	1.70	11.00
3 to 4 feet .....	.20	2.00	15.00	.23	2.35	17.00
4 to 5 feet .....	.25	2.50	18.00	.30	3.00	22.00
Crab Apple (Same as Apple).						
Cherries, Page 7						
3 to 4 feet .....	.15	1.60	12.00	.18	2.00	15.00
4 to 5 feet .....	.20	2.25	17.50	.25	2.75	22.00
Figs, Page 5						
1 to 2 feet .....	.15	1.50	11.00	.17	1.80	13.00
2 to 3 feet .....	.20	2.00	15.00	.25	2.50	18.00
Grapes, Pages 13 to 21						
Concord, Captain, Catawba, Cloeta, Delaware, Fern Munson, R. W. Mun- son, Headlight .....	.10	1.00	6.00	.12	1.20	7.00
America, Bell, Ben Hur, Champanel, Goethe, Gold Coin, Lukfata, Manito, Manson, Valhalla, Wine King .....	.15	1.25	7.50	.17	1.50	8.50
Beacon, Carman, Delakins, Mericadel, Muench, Wapanuka, Xlnta .....	.15	1.50	9.00	.17	1.75	9.75
Augustina, Amethyst, Blondin, Colum- bian, Extra, Green Mountain, Her- bement, Jacquez, Red Giant .....	.15	1.75	10.00	.17	2.00	11.00
Brilliant, Bailey, Dr. Collier, Husmann ..	.20	2.00	12.00	.22	2.25	13.00
Armalaga, Captivator, Ericson, Edna, Hernito, Lomanto, Ladano, Nitodal, President, RONALDA, Salamander .....	.25	2.50	18.00	.27	2.75	20.00
Ellen Scott, Last Rose, Longfellow .....	.50	4.00	30.00	.50	4.25	32.00
Grapes—Vinifera, Pages 21 and 23						
Regular Grade Vines, Malaga .....	.10	.75	8.00	.11	1.00	9.00
Pearl of Casaba, Muscat Rose, Escol .....	.25	2.50	18.00	.27	2.75	20.00
All other varieties on pages 21 and 23 ..	.15	1.50	10.00	.17	1.75	11.00
Special 4 ft. Vines:						
Muscat, Malaga, Flame Tokay, Black Hamburg, Black Cornichon, Emperor ..	.35	3.00	20.00	.40	4.00	24.00
Muscadines, Page 23 .....	.25	2.50	....	.30	3.00	....

PRICE LIST—Continued

Varieties and Sizes.	DENISON SCALE			PREPAID SCALE		
	Each	Dozen	100	Each	Dozen	100
Mulberries, Page 5						
One year—						
2 to 3 feet.....	\$0.10	\$1.00	\$ 7.00	\$0.11	\$1.20	\$ 8.00
3 to 4 feet.....	.15	1.50	11.00	.18	1.75	12.00
4 to 5 feet.....	.20	2.00	15.00	.25	2.50	17.50
Pears, Page 5						
Keiffer, Garber—						
3 to 4 feet.....	.15	1.50	10.00	.17	1.75	11.00
4 to 5 feet.....	.20	2.00	12.00	.25	2.50	14.00
All other varieties—						
3 to 5 feet.....	.25	2.50	18.00	.30	3.00	20.00
Plums, Page 6						
All varieties except those named below—						
3 to 4 feet.....	.20	1.75	14.00	.22	2.25	16.00
4 to 5 feet.....	.25	2.50	18.00	.30	3.00	21.00
Funk Early, May Beauty, Roy, Minco, Ward, 3 to 5 feet.....	.40	4.00	....	.45	4.50	....
Peaches, Pages 9, 10, 11						
All varieties except those named below—						
2 to 3 feet.....	.10	1.00	7.00	.11	1.15	8.00
3 to 4 feet.....	.15	1.50	9.00	.17	1.75	11.00
4 to 5 feet.....	.20	2.00	12.00	.25	2.50	15.00
Arp Beauty, Texas King, Munson Free, Munson Cling, Superb—						
3 to 4 feet.....	.20	2.00	15.00	.22	2.50	17.00
4 to 5 feet.....	.30	3.00	20.00	.35	3.50	23.00
Early Wheeler, any size.....	.50	5.00	25.00	.50	5.00	25.00
Persimmons, Page 8						
Japanese, grafted trees—						
2 to 3 feet.....	.30	3.00	20.00	.32	3.25	22.00
3 to 4 feet.....	.40	4.00	30.00	.45	4.50	34.00
4 to 5 feet.....	.50	5.00	40.00	.60	6.00	50.00
Ta-mo-pan—						
3 to 4 feet.....	1.00	9.00	....	1.15	12.00	....
5 to 6 feet.....	1.50	15.00	....	1.75	18.00	....
Josephine, Kawakami, grafted—						
1 to 3 feet.....	.35	3.25	....	.38	3.50	....
3 to 4 feet.....	.50	5.00	....	.55	5.50	....
Josephine Seedlings—						
1 to 2 feet.....	.10	.90	7.00	.11	1.00	7.75
2 to 3 feet.....	.15	1.40	11.00	.17	1.75	12.50
3 to 4 feet.....	.20	2.00	....	.25	2.50	....
Pecan, Grafted varieties, Page 7						
1 to 2 feet.....	.60	6.00	45.00	.65	6.50	50.00
2 to 3 feet.....	.75	7.00	60.00	.85	8.50	70.00
3 to 4 feet.....	1.00	10.00	75.00	1.20	12.00	90.00
Seedlings—						
1 to 2 feet.....	.15	1.25	10.00	.17	1.75	11.00
2 to 3 feet.....	.20	1.75	14.00	.25	2.25	16.00
Quinces, Meech.....	.15	1.50	10.00	.17	1.75	12.00
Shade Trees, Page 26						
Size A. 3 to 4 feet.....	.10	1.00	7.00	.12	1.25	8.00
Size B. 4 to 6 feet.....	.15	1.50	11.00	.20	2.00	14.00
Size C. 6 to 8 feet, less than 1 inch...	.20	2.00	15.00	.30	3.00	20.00
Size D. 6 to 8 feet, 1 to 1¼ inch.....	.25	2.50	20.00	.40	4.00	28.00
Size E. 8 to 10 feet, 1 to 1½ inch.....	.35	3.50	27.50	.50	5.50	50.00
Size F. 8 to 10 feet, 1½ to 2 inch.....	.50	5.00	40.00	.75	7.50	70.00
Size G. 8 to 10 feet, 2 to 2¼ inch.....	.75	7.50	....	1.50	15.00	....
Size H. 8 to 10 feet, 2¼ to 2¾ inch...	1.00	10.00	....	2.50	25.00	....
Size J. 10 feet, 3 to 3½ inch.....	2.00	20.00	....	5.00	50.00	....
Weeping Mulberry, 2 to 3 feet.....	.25	2.50	....	.30	3.00	....

PRICE LIST—Continued

Varieties and Sizes.	DENISON SCALE			PREPAID SCALE		
	Each	Dozen	100	Each	Dozen	100
Deciduous Shrubs, Pages 26 and 27						
Althea	\$0.25	\$2.50	....	\$0.30	\$3.00	....
California Privet—						
1 yr., 1 to 2 feet.....	.10	.60	\$ 3.50	.11	.75	\$ 4.50
2 yr., 2 to 3 feet.....	.15	1.00	5.00	.18	1.35	7.00
3 yr., 3 to 4 feet.....	.20	1.75	9.00	.25	2.50	15.00
All other shrubs—						
One year .....	.10	1.00	8.00	.11	1.25	9.00
Two years .....	.15	1.50	10.00	.20	2.00	13.00
Climbing Vines, Page 27.....	.20	2.00	15.00	.22	2 25	17.00
Roses, Page 25.....	.20	2.00	15.00	.25	2.50	18.00
Coniferous Evergreens, Pages 27 and 28						
6 to 12 inches.....	.15	1.50	10.00	.16	1.75	11.00
1 to 2 feet.....	.25	2.50	20.00	.30	3.25	25.00
2 to 3 feet.....	.50	5.00	....	.75	7.00	....
3 to 4 feet.....	1.00	10.00	....	1.50	16.00	....
Broad Leaved Evergreens, Page 28						
Cape Jessamine—						
12 to 18 inch.....	.25	2.50	15.00	.30	3.00	20.00
18 to 24 inch.....	.35	3.50	25.00	.40	4.50	30.00
Magnolia Grandiflora—						
1 to 2 feet.....	.25	2.50	....	.27	3.00	....
2 to 3 feet.....	.50	4.00	....	.65	6.50	....
3 to 4 feet.....	1.00	9.00	....	1.40	15.00	....
4 to 5 feet.....	2.00	20.00	....	3.00	28.00	....
Euonymus Japonica—						
6 to 12 in.....	.10	1.00	7.00	.11	1.15	7.75
12 to 18 in.....	.15	1.50	10.00	.18	1.85	11.00
Perennials, Page 28						
Iris, Grasses .....	.10	.75	5.00	.11	.85	5.60
Hybrid, Hardy Hibiscus.....	.25	2.50	18.00	.28	3.00	20.00
Note:—A dozen of any variety of berry plants is the least number that will be sold; a less number will cost same as a dozen.						
	Dozen	100	1,000	Dozen	100	1,000
Blackberries, Page 11	\$0.35	\$1.75	\$12.00	\$0.40	\$2.00	\$14.00
Dewberries, Mayes .....	.30	1.50	10.00	.35	1.75	12.00
Raspberries, Page 11.....	.40	2.50	18.00	.50	3.00	20.00
Strawberries, Page 11, all except Parker						
Earle .....	.25	.75	4.00	.30	1.00	5.00
Parker Earle .....	.35	1.00	6.00	.40	1.25	7.50

Clubbing Rates

Where there are several in a neighborhood desiring trees and other nursery stock, it would be to their advantage to club together and have some one of their number to make the entire order as a single order, thereby getting the advantage of one express charge instead of several, besides getting stock at a lower rate on account of increased quantity in one shipment. For example, say there were eight parties in a neighborhood who only wanted about five peach trees each. If each one made a separate order the cost would be 5 peach trees at 20 cents each, and express 35 cents; total to each one, \$1.35; hence the total cost to the eight would be \$10.80. But if all these eight parties went together and had one to make the

entire order as one order and order the 40 peach trees, they could then buy 40 at \$12 per 100, or \$4.80, plus express, say, of 70 cents, making the total of \$5.50. This, when prorated, would be about 70 cents to each, instead of \$1.35, as would be if each one ordered separate. Another plan would be for one of the party to collect from his neighbor \$1 for his 5 trees, and so for each one, and then make the order and remit us for 40 at \$12 per 100, thereby making the difference of \$3.20 for his trouble, and each neighbor would be paying no more than if he ordered alone. The plan is to combine the several individual orders in one aggregate, which will enable all to get the dozen or 100 rate according to quantity, whereas they would be only allowed the single or dozen rate if ordered separate.

Hybrid Hardy Perennial Hibiscus

By hybridizing the native species *Hibiscus Moscheutos*, *Hibiscus Militaris*, and *Hibiscus Coccineus*, we have obtained from the common Marsh Mallows a most remarkable lot of splendid varieties in numerous shades from pure white with crimson eye, through most delicate and rich pinks from blush to dark pink, crimson of many shades, and glowing scarlet, as though glossed with varnish. The colors all are of clear, fresh, lively shades. This group of wonderful flowers, rich enough for the garden of any king, eclipsing *Cosmos* and *Shasta Daisies* a thousand times, we have produced in a few generations of selecting and crossing. The flowers are often 8 to 12 inches in diameter and glow like suns of various colors. As soon as known these new creations will become exceedingly popular, as the plants are of the easiest culture and are perpetual bloomers throughout summer in the driest seasons. They grow 3 to 6 feet tall. The tops die down in the fall but roots live for many years, sending up many stalks to flower each season. The seeds sown early in spring will produce blooming plants the latter part of the first season.

Of all the wonders produced by hybridization, none is more remarkable or strikingly beautiful for bedding in borders or in the garden than these.

We offer SEEDS of pink, crimson and white at 25 cents per packet. See Price List for Roots.

One variety, the most gorgeous varnished scarlet with handsome cut leaves, we have named

Scarlet Cuspidata

Of this we have no roots to offer this season, but offer seeds at 50 cents per packet of about 100 seeds. This variety is worked into a pure strain that closely reproduces itself.

Spray Pumps and Sprayers

Spraying to combat plant diseases, insects and fungus troubles has become such an important necessity, we will take pleasure to assist our customers to get the best sprayers at the lowest prices.

We do not keep any sprayers in stock, but same can be sent direct from the factory to the buyer. This enables us to secure them at a less cost than if we carried in stock, as we can save the freight charge from factory to our place and also cost of keeping in stock. We are able to get them direct from the factory at a discount, and as we will be at no expense, we give our customers the benefit of the discount we are able to obtain. We describe on next page a few of the most popular sizes, but we can also secure other sizes suited to your needs. The retail price of the first described is \$8.50, but by having it sent direct from factory the cost, as noted, is \$6.75 f. o. b. factory. Even when express or freight from factory is added to this it will not be as much as the retail price of \$8.50, which we would have to charge if we went to the expense of having them brought here and carried in stock.

THE AUTO-SPRAY No. 1 THE WORLD'S STANDARD COMPRESSED AIR SPRAYER



Adapted for every variety of spraying where a hand sprayer can be used. Made in heavy brass or galvanized iron as desired, and has tank capacity of three gallons of solution. The pump is of heavy brass, 2" in diameter, and two or possibly three pumpings will empty the tank under higher and more constant pressure than any other knapsack sprayer. The brass tank will withstand chemical solutions, and is recommended, also the Auto-Pop shut-off, which is automatic in action and operates a self-cleaning wire through the nozzle.

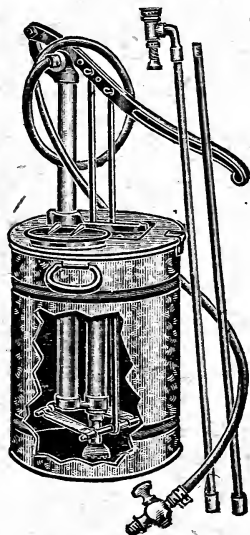
	Net Cash
Auto-Spray No. 1-A, brass tank, stop-cock	\$6.75
Auto-Spray No. 1-B, brass tank, auto-pop	7.65
Auto-Spray No. 1-C, galv. tank, stop-cock	4.50
Auto-Spray No. 1-D, galv. tank, auto-pop	5.40
Brass 2' extensions .....	.45

THE AUTO-SPRAY No. 3-B

THE BEST WHITEWASH AND PAINT- ING MACHINE AND GENERAL PURPOSE SPRAYER EVER MANUFACTURED

This is a strong, powerful hand sprayer with a capacity of 8 gals. of mixture. It is perfectly adapted to all-around use, for tall trees, shrubs and vines, as well as for applying whitewash or cold water paints. It is as simple as it is strong in construction. The reservoir is made of heavy galvanized steel, the pump being all brass. An agitator attached to the handle keeps the solution thoroughly mixed. Easily carried from place to place or mounted on a wagon. Absolutely the most popular for applying whitewash and paints. Furnished with complete equipment, which includes 8' of the best 3-ply discharge hose, 8' of iron extension, lever shut-off and vermored nozzle.

	Net Cash
Auto-Spray No. 3-B, galv. tank, with full equipment	\$11.20
Auto-Spray No. 3-A, brass tank, with full equipment	13.60



THE AUTO-SPRAY No. 24 BARREL SPRAYER FOR ORCHARD AND FIELD CROPS

For those who require a barrel sprayer of exceptional durability and high pressure, this machine is specially recommended. It may be operated all day without fatigue, and is warranted to operate four nozzles if required. All working parts and valves are fully exposed and instantly get-at-able. The plunger is fitted with outside graphite packing which can be readily adjusted, and will seldom require renewing. The air chamber is large and insures a steady, constant pressure.

	Net Cash
Auto-Spray No. 24, pump only	\$12.80
Mounted on barrel	16.00
20' 3-ply 1/2" discharge hose	2.88
Bamboo brass lined extension, with stop-cock and drip shield, length up to 10'	2.40
Non-Clog Atomic Nozzle, brass	1.00

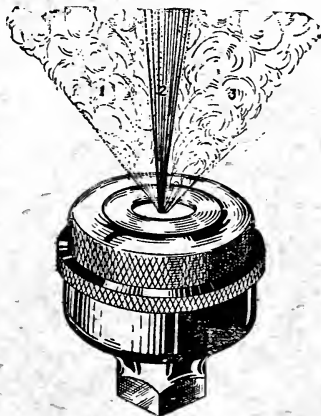


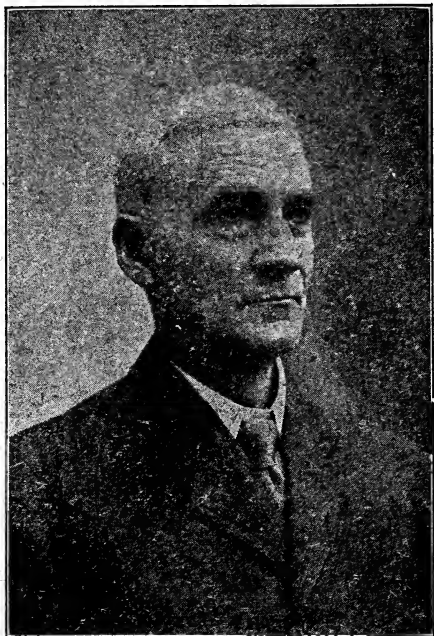
NON-CLOG ATOMIC NOZZLE

This nozzle is intended for use with all barrel pumps and power sprayers. It is made of cast bronze or aluminum and is fitted with standard 1/4" pipe thread so that it will fit all connections of standard make. It is positively the only nozzle that will not clog, despite the claims of other manufacturers. Can be adjusted by a simple mechanism to throw every gradation of spray. Each nozzle is furnished with 4 discs, with apertures of different size, giving the nozzle capacity of one, two, three or four vermoreds, according to the disc that is used.

	Net Cash
Non-Clog Atomic Nozzle, brass	\$1.00
Non-Clog Atomic Nozzle, aluminum	1.20

We will furnish you a complete spray pump catalogue on request, showing the most complete line of spray machinery in the United States. The above are leading styles for all common uses.





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By T. V. MUNSON, Denison, Texas

The Best Work on Grapes Published in the United States

This magnificent book is a monument that will perpetuate the memory of one who spent his noble life in the study of this fascinating subject, the Grape. It was indeed fortunate that the author put together in book form the results of his life work. Had he delayed it five years longer from the date of its publication (1908) the world would have been the loser.

This work has taken its place as the best book on grape culture in America, as is evidenced by the many highly complimentary testimonials from men who stand high in the viticultural world, as well as botanists, vineyardists, and amateur grape growers.

The book is strongly bound in buckram, with beautiful title on cover, embossed in gold. It is printed upon fine glazed paper, giving most beautiful, clear impressions of type and halftone full page engravings, 90 in number, 252 pages in all, 7½x10 inches. The book contains 8 chapters upon the different divisions of the subject, as follows: I. Botany of American Grapes. II. Breeding of Varieties of Grapes. III. Description of Varieties. IV. Adaptation of Varieties. V. How to Start a Vineyard, including Trellising, Pruning, Training, etc. VI. Protecting the Vineyard from Insects and Fungi. VII. Disposition of the Crop. VIII. The Grape for Home Adornment, Shade, Fruit and Health.

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